HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

AZ2-TK *Chassis*

ORIGINAL MANUAL ISSUE DATE: 1/2011

Version	Date	Subject
1.0	1/13/2011	No revisions or updates are applicable at this time.

LCD Digital Color TV

SONY

9-883-856-01

Self Diagnosis
Supported model

SERVICE MANUAL

AZ2-TK *Chassis*

LCD Digital Color TV

SONY®

9-883-856-01

MODEL LIST

MODEL	COMMANDER	DESTINATION
KDL-22BX325	*RM-YD066*	*CHILE*
KDL-22BX325	*RM-YD066*	*VENEZUELA*
KDL-32BX325	*RM-YD066*	*CHILE*
KDL-32BX325	*RM-YD066*	*VENEZUELA*

MODEL	COMMANDER	DESTINATION
KDL-32BX326	*RM-YD066*	*CHILE*
KDL-32BX326	*RM-YD066*	*VENEZUELA*
KDL-32BX425	*RM-YD066*	*CHILE*
KDL-40BX425	*RM-YD066*	*CHILE*
KDL-40BX425	*RM-YD066*	*VENEZUELA*

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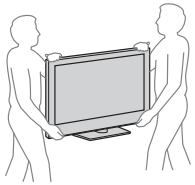
WARNINGS AND CAUTIONS

CAUTION

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

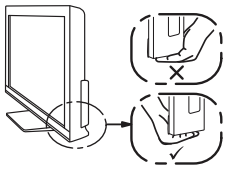
CARRYING THE TV

- Disconnect all cables when carrying the TV.
- Carry the TV with the adequate number of people; larger size TVs require two or more people.
- Correct hand placement while carrying the TV is very important for safety and to avoid damage.



KDL-32BX325/32BX326/32BX425/40BX425 Only

KDL-22BX325 Only



WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.

⚠ SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ⚠ mark on the exploded views are critical for safe operation.
Replace all components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. It is essential that all critical parts be replaced only with the part number specified in this manual to prevent electric shock, fire, or other hazard.
Circuit adjustments that are critical for safe operation are identified in this manual.
Follow these procedures whenever critical components are replaced or improper operation is suspected.

NOTE: Do not modify the original design without obtaining written permission from the manufacturer or you will void the original parts and labor guarantee.

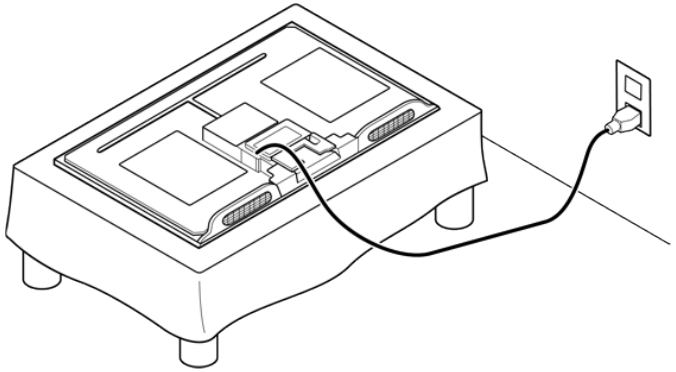
SAFETY-RELATED WARNING

USE CAUTION WHEN HANDLING THE LCD PANEL

When repairing the LCD panel, be sure you are grounded by using a wrist band.

When installing the LCD panel on a wall, the LCD panel must be secured using the 4 mounting holes on the rear cover.

1) Do not press on the panel or frame edge to avoid the risk of electric shock.
2) Do not scratch or press on the panel with any sharp objects.
3) Do not leave the module in high temperatures or in areas of high humidity for an extended period of time.
4) Do not expose the LCD panel to direct sunlight.
5) Avoid contact with water. It may cause a short circuit within the module.
6) Disconnect the AC power when replacing the backlight (CCFL) or inverter circuit.
   (High voltage occurs at the inverter circuit at 650Vrms.)
7) Always clean the LCD panel with a soft cloth material.
8) Use care when handling the wires or connectors of the inverter circuit. Damaging the wires may cause a short.
9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).
10) During the repair, DO NOT leave the Power On for more than 1 hour while the TV is face down on a cloth.



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

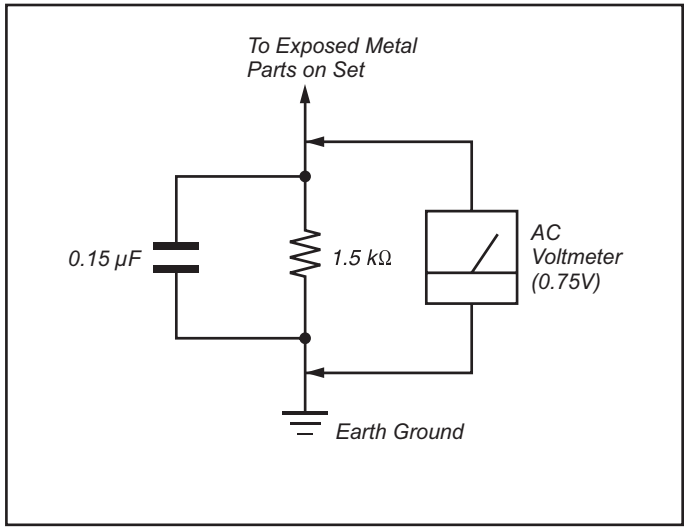


Figure A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA(500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.

2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale.

   The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground.

If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60-to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

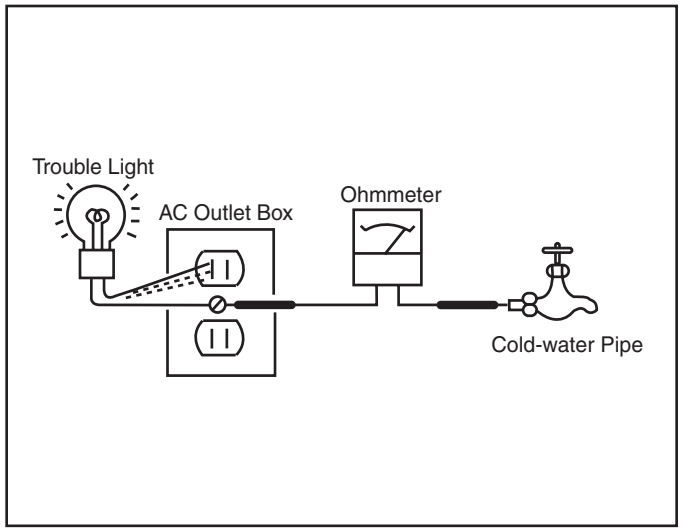


Figure B. Checking for earth ground.

SELF DIAGNOSIS FUNCTIONS

Self Diagnosis Supported model

SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

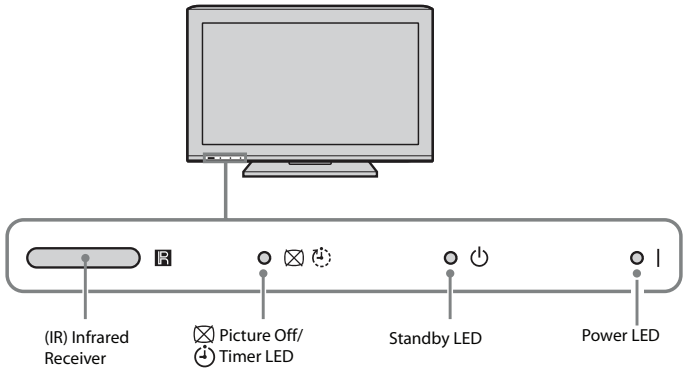
DIAGNOSTIC TEST INDICATORS

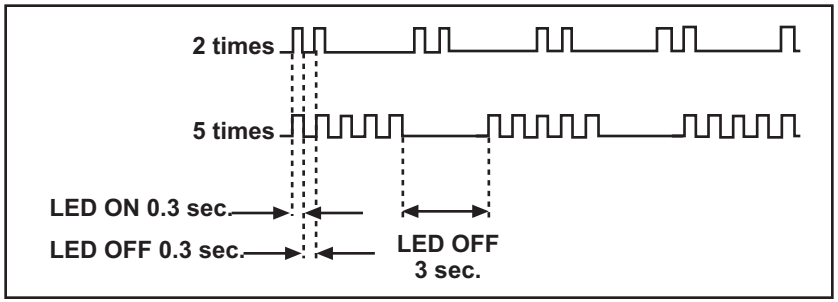
When an error occurs, the STANDBY LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.
Result for all of the following diagnostic items are displayed on screen.

If the screen displays a "0", no error has occurred .

Number of times Standby LED blinks	Diagnostic Item	Possible Causes	Possible Location
NA	RGB_SEN	RGB Sensor ACK Error	NA
2	MAIN_POWER	Main Power Over Voltage Protection	LIPS22 (Power) Board (KDL-22BX325 Only) GT32 (Power) Board (KDL-32BX325/32BX326/32BX425 Only) GT40 (Power) Board (KDL-40BX425 Only)
3	AUD_PROT	Audio Error Detection	A Board
	DC_ALERT	DTT Error	
4	BALANCER	Panel Balancer Error	NA
5	TCON ERR	TCON Error	TCON Control MT Board LVDS Connection
	HFR ERR	HFR Error	
	P_ID_ERR	Panel ID NVM Error	
	PANEL_POWE	Panel Error	
6	BACKLITE	Backlight Error	LCD Panel LIPS22 (Power) Board (KDL-22BX325 Only) GT32 (Power) Board (KDL-32BX325/32BX326/32BX425 Only) GT40 (Power) Board (KDL-40BX425 Only)
7	TEMP_ERR	Temperature Error	A Board

STANDBY LED FLASH COUNT





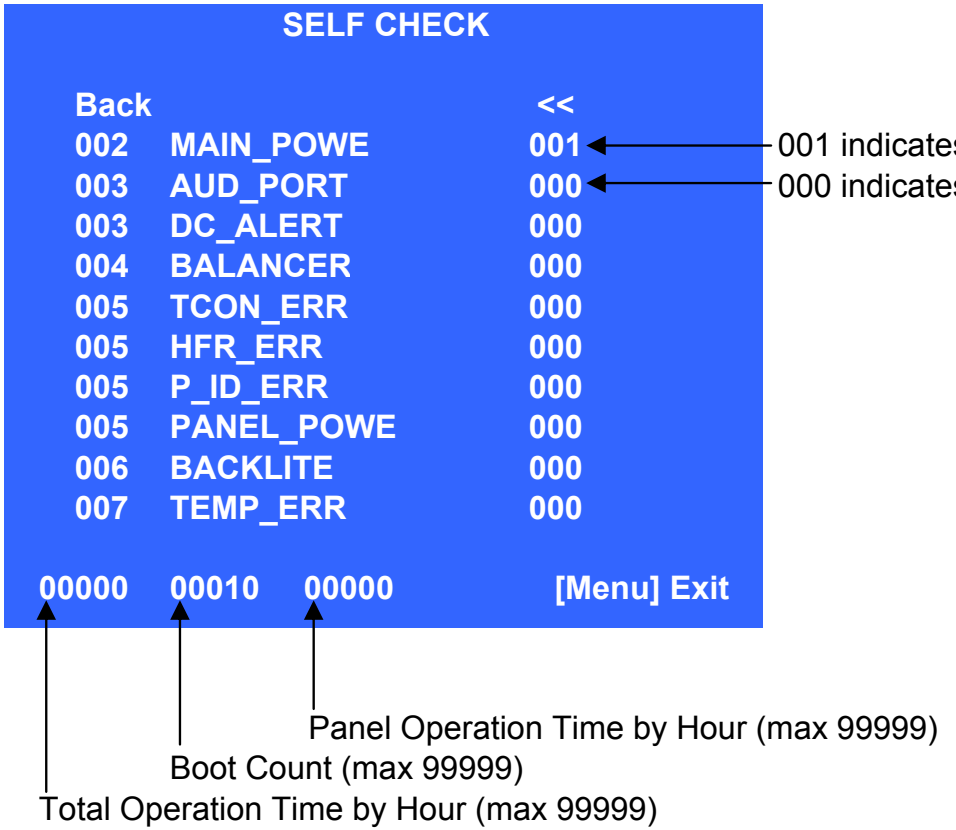
VIEWING THE SELF CHECK DIAGNOSTIC LIST

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of a failure for confirmation on the Self Check diagnostic screen:

1. TV must be in standby mode. (Power off).
2. Press the following buttons on the Remote Commander within a second of each other:

DISPLAY → Channel 5 → Volume - → POWER.

↑ * NOTE: This differs from accessing Service Adjustments Mode (Volume +)



CLEARING THE SELF CHECK DIAGNOSTIC LIST

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen after you have completed the repairs to be sure you have cleared the result display to “0”.

1. To clear the Error history and Error count: Press the Channel [8] ➡ Channel [0].
2. To clear the Panel operation time: Press the Channel [7] ➡ Channel [0].

EXITING THE SELF CHECK DIAGNOSTIC SCREEN

1. To exit the Self Diagnostic screen, turn off the power to the TV by pressing the POWER button on the remote or the POWER button on the TV.

SPECIFICATIONS

Sistema	
Sistema de TV	Análogo: NTSC / PAL-M / PAL-N Digital: SBTVD-T
Cobertura de canales	VHF: 2-13 UHF: 14-69 CATV (Análogo): 1-135
Sistema del panel	Panel LCD (pantalla de cristal líquido)
Salida de bocinas (excepto KDL-22BX325)	8 W + 8 W
Salida de bocinas (sólo KDL-22BX325)	5 W + 5 W
Tomas de entrada/salida	
CABLE/ANTENNA	Terminal externo de 75-ohm para entrada de señal de radiofrecuencia
VIDEO IN 1/2	VIDEO: 1 Vp-p, 75 ohm no equilibrado, sincronización negativa AUDIO: 500 mVrm (Típico) / Impedancia: 47 kilohm
COMPONENT IN	YPBPR (video componente): Y: 1,0 Vp-p, 75 ohm no equilibrado, sincronización negativa / PB: 0,7 Vp-p, 75 ohm / PR: 0,7 Vp-p, 75 ohm / Formato de señal: 480i, 480p, 576i, 576p, 720p, 1.080i, 1.080p AUDIO: 500 mVrm (Típico) / Impedancia: 47 kilohm
HDMI IN	HDMI: Video: 480i, 480p, 576i, 576p, 720p, 1.080i, 1.080p, 1.080/24p Audio: PCM lineal de dos canales 32; 44,1 y 48 kHz; 16; 20 y 24 bits, Dolby Digital Entrada de PC (consulte la página 47)
AUDIO OUT	500 mVrm (típico)
DIGITAL AUDIO OUT (OPTICAL)	Salida de audio óptica digital (PCM/Dolby Digital)
PC IN	Subminiatura D de 15 contactos, RGB analógico, 0,7 Vp-p, 75 ohm, positiva Consulte la tabla de referencia de la señal de entrada de la PC para PC y HDMI IN en la página 47.
PC/HDMI IN 1 AUDIO INPUT	Minitoma estéreo, 500 mVrm, (Típico) / Impedancia: 47 kilohm

Información de licencias

Macintosh es una marca comercial de Apple Inc., registrada en EE. UU. y otros países.

HDMI, el logotipo de HDMI y High-Definition Multimedia Interface son marcas comerciales o marcas comerciales registradas de HDMI Licensing, LLC en los Estados Unidos y en otros países.

Fergason Patent Properties, LLC:
N° de patente de EE.UU. 5.717.422
N° de patente de EE.UU. 6.816.141

Fabricado bajo licencia de Dolby Laboratories. Dolby y el símbolo de la doble D son marcas comerciales de Dolby Laboratories.

Blu-ray Disc es una marca comercial.

"BRAVIA", BRAVIA, BRAVIA Sync, y son marcas comerciales o marcas registradas de Sony Corporation.

"PlayStation" es una marca comercial registrada y "PS3" es una marca comercial de Sony Computer Entertainment Inc.

Nombre del modelo KDL-	40BX425	32BX425
Corriente y otras especificaciones		
Requisitos de alimentación	110-240 V ca 50/60 Hz	
Consumo energético en uso	177 W	122 W
Consumo energético en espera	Menos de 1,0 W	
Tamaño de pantalla (medido diagonalmente)	40	31,5 (32 clase)
Resolución del monitor	1.920 puntos (horizontales) × 1.080 líneas (verticales)	
Bocina/Gama completa (2) (mm)	40 × 100	
Dimensiones con soporte (mm)	988 × 632 × 250	800 × 528 × 220
Dimensiones sin soporte (mm)	988 × 600 × 94	800 × 496 × 91
Dimensiones patrón de los orificios de montaje mural (mm)	300 × 300	200 × 200
Dimensiones tamaño de tornillos de montaje mural (mm)	M6 (longitud: consulte el diagrama en la página 49)	
Peso con soporte (kg)	15,3	11,2
Peso sin soporte (kg)	13,3	9,6
Accesorios suministrados común para todos los modelos	Control remoto RM-YD066 (1) / Pilas tipo AA (2) / Manual de instrucciones (1) / Guía de configuración rápida (1) / Suplemento (para evitar caídas) (1) / Manual de seguridad (1) / Licencia del software (1) / Guía de ensamble de la base de soporte (1) / Soporte de sobremesa (1 juego)	
Accesorios suministrados modelos individuales	Tornillos (7)	
Accesorios opcionales	Cables de conexión / Kit de correa de soporte / Soporte de montaje mural: SU-WL500	

Nombre del modelo KDL-	32BX326 32BX325	22BX325
Corriente y otras especificaciones		
Requisitos de alimentación	110-240 V ca 50/60 Hz	
Consumo energético en uso	122 W	50 W
Consumo energético en espera	Menos de 1,0 W	
Tamaño de pantalla (medido diagonalmente)	31,5 (32 clase)	21,6 (22 clase)
Resolución del monitor	1.366 puntos (horizontales) × 768 líneas (verticales)	
Bocina/Gama completa (2) (mm)	40 × 100	30 × 100
Dimensiones con soporte (mm)	800 × 528 × 220	551 × 393 × 215
Dimensiones sin soporte (mm)	800 × 496 × 91	551 × 363 × 61
Dimensiones patrón de los orificios de montaje mural (mm)	200 × 200	100 × 100
Dimensiones tamaño de tornillos de montaje mural (mm)	M6 (longitud: consulte el diagrama en la página 49)	M4 (longitud: consulte el diagrama en la página 49)
Peso con soporte (kg)	11,2	5,7
Peso sin soporte (kg)	9,6	5,1
Accesorios suministrados común para todos los modelos	Control remoto RM-YD066 (1) / Pilas tipo AA (2) / Manual de instrucciones (1) / Guía de configuración rápida (1) / Suplemento (para evitar caídas) (1) / Manual de seguridad (1) / Licencia del software (1) / Guía de ensamble de la base de soporte (1) / Soporte de sobremesa (1 juego)	
Accesorios suministrados modelos individuales	Tornillos (7)	
Accesorios opcionales	Cables de conexión / Kit de correa de soporte / Soporte de montaje mural: SU-WL100 (sólo KDL-22BX325), SU-WL500 (excepto KDL-22BX325)	

- La disponibilidad de los accesorios opcionales dependerá de las existencias.
- El diseño y las especificaciones están sujetos a cambios sin previo aviso.

SEC 1. DISASSEMBLY/PART NUMBER INFORMATION

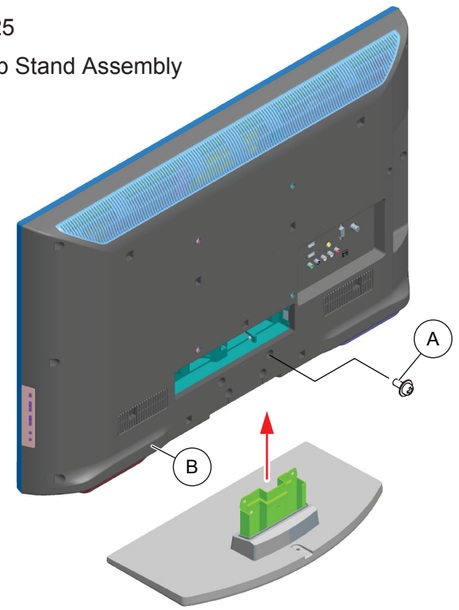
1-1. TABLE-TOP STAND ASSEMBLY REMOVAL

Ⓐ Remove screws from Table-Top Stand Assembly

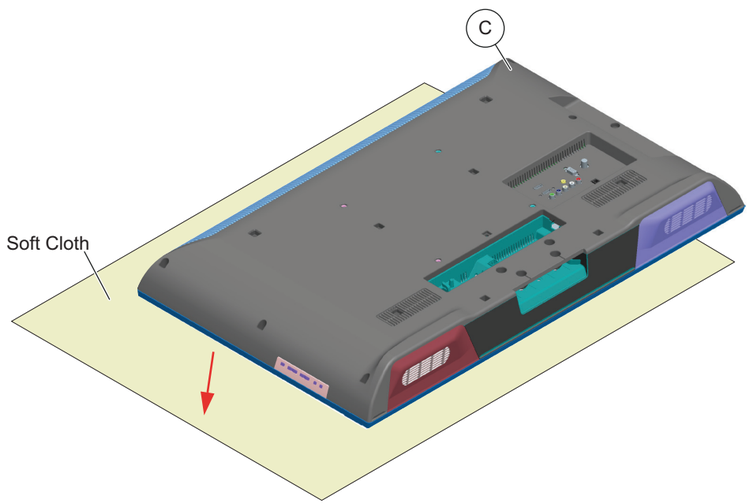
3 from KDL-22BX325 Only

4 from All Models except KDL-22BX325

Ⓑ Lift up TV set to detach from Table-Top Stand Assembly



Ⓒ Gently place the TV set face down onto a soft cloth



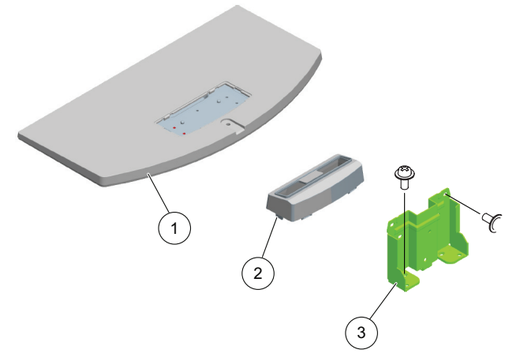
Components not identified by a part number or description are not stocked because they are seldom required for routine service.

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.



REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
1	X-2580-960-1	BASE (S3B) ASSEMBLY (KDL-22BX325 ONLY)
1	X-2580-961-1	BASE (M3B) ASSEMBLY (KDL-32BX325/32BX425 ONLY)
1	X-2546-085-2	BASE (M5B) ASSEMBLY (KDL-32BX326 ONLY)
1	X-2580-962-1	BASE (ML3B) ASSEMBLY (KDL-40BX425 ONLY)
2	4-264-254-01	COVER, NECK (S3B) (KDL-22BX325 ONLY)
2	4-264-260-01	COVER, NECK (M3B) (KDL-32BX325/32BX326/32BX425 ONLY)
2	4-264-266-01	COVER, NECK (ML3B) (KDL-40BX425 ONLY)
3	4-264-274-01	NECK (S5) (KDL-22BX325 ONLY)
3	4-264-282-01	NECK (M3B) (KDL-32BX325/32BX326/32BX425 ONLY)
3	4-264-293-01	NECK (ML3B) (KDL-40BX425 ONLY)

1-2. REAR COVER AND SPEAKERS REMOVAL

1-2-1. KDL-22BX325 ONLY

Ⓐ Remove 4 screws from Rear Cover

Ⓑ Remove 1 screw from Side Jack position

Ⓒ Remove 1 screw from Terminal Area position

Ⓓ Lift up Rear Cover to detach from Bezel

Ⓔ Slide-out 2 Vesa Brackets to detach from Rear Cover

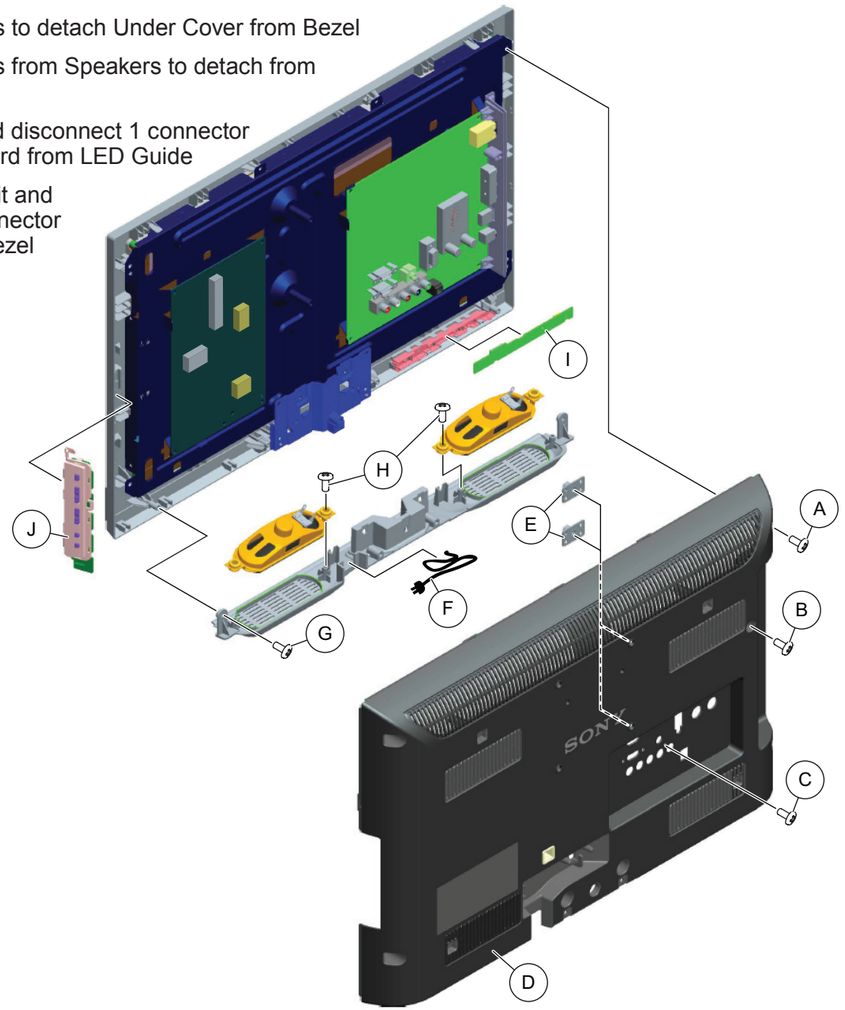
Ⓕ Lift up AC Power Cord and disconnect 1 connector from LIPS22 Board to detach from Under Cover

Ⓖ Remove 2 screws to detach Under Cover from Bezel

Ⓗ Remove 4 screws from Speakers to detach from Under Cover

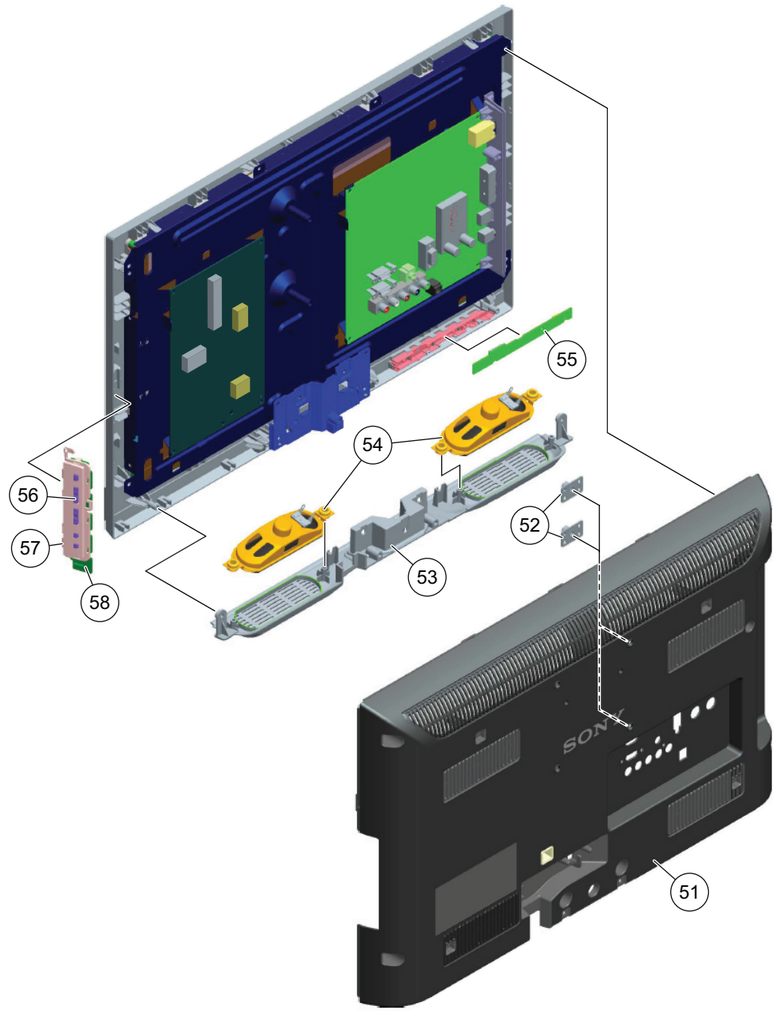
Ⓘ Release clips and disconnect 1 connector to detach H1 Board from LED Guide

Ⓙ Lift up Switch Unit and disconnect 1 connector to detach from Bezel



NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
51	4-276-526-01	REAR COVER (GT22)	
52	4-276-529-01	BRACKET, VESA (22))	
53	4-264-253-01	COVER, UNDER (GT22)	
54	1-858-604-11	LOUD SPEAKER (3.5X10CM)	
55	1-857-925-11	H1 BOARD, MOUNTED	
56	4-264-270-01	KEY PAD (GT)	
57	4-264-271-01	COVER, KEY (GT)	
58	1-857-926-11	H2 BOARD, MOUNTED	

1-2-2. KDL-32BX325/32BX326/32BX425/40BX425 ONLY

Ⓐ Remove 11 screws from Rear Cover

Ⓑ Remove 1 screw from Side Jack position

Ⓒ Remove 1 screw from Terminal Area position

Ⓓ Lift up Rear Cover to detach from Bezel

Ⓔ Lift up AC Power Cord and disconnect 1 connector from GT32/GT40 Board to detach from Under Cover

Ⓕ Remove screws to detach Under Cover from LCD Panel

5 from KDL-32BX325/32BX326/32BX425 Only

1 from KDL-40BX425 Only

Ⓖ Remove screws to detach Left Speaker Bracket from LCD Panel

1 from KDL-32BX325/32BX326/32BX425 Only

2 from KDL-40BX425 Only

Ⓗ Remove 4 screws from Speaker to detach from Left Speaker Bracket

Ⓘ Release clips and disconnect 1 connector to detach H1 Board from LED Guide

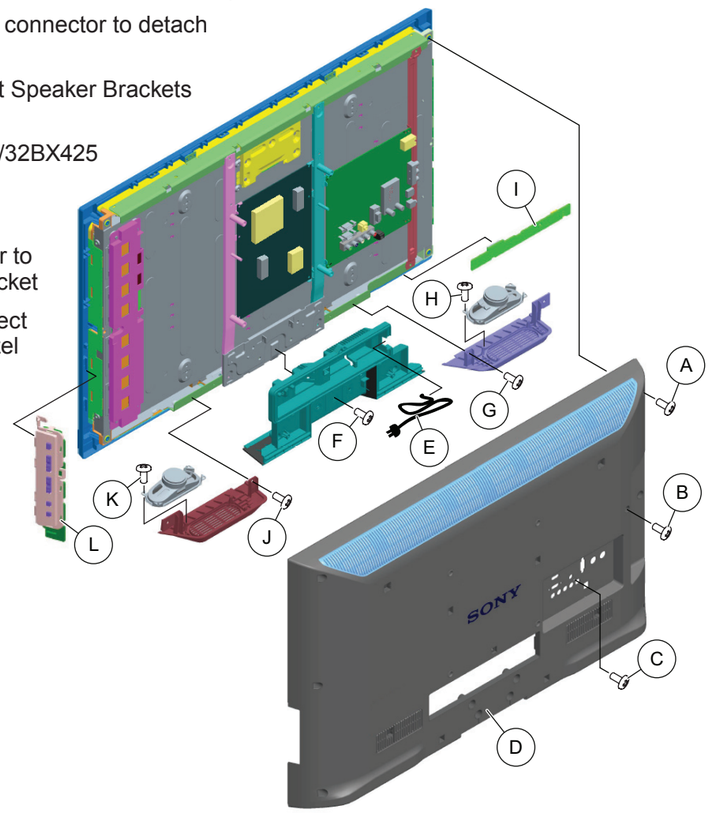
Ⓙ Remove screws to detach Right Speaker Brackets from LCD Panel

1 from KDL-32BX325/32BX326/32BX425 Only

2 from KDL-40BX425 Only

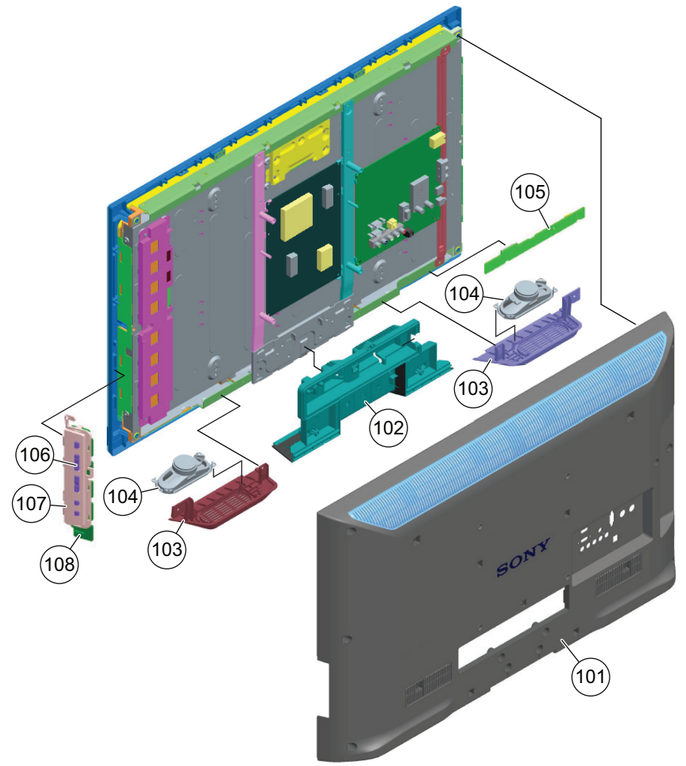
Ⓚ Remove 4 screws from Speaker to detach from Right Speaker Bracket

Ⓛ Lift up Switch Unit and disconnect 1 connector to detach from Bezel



NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

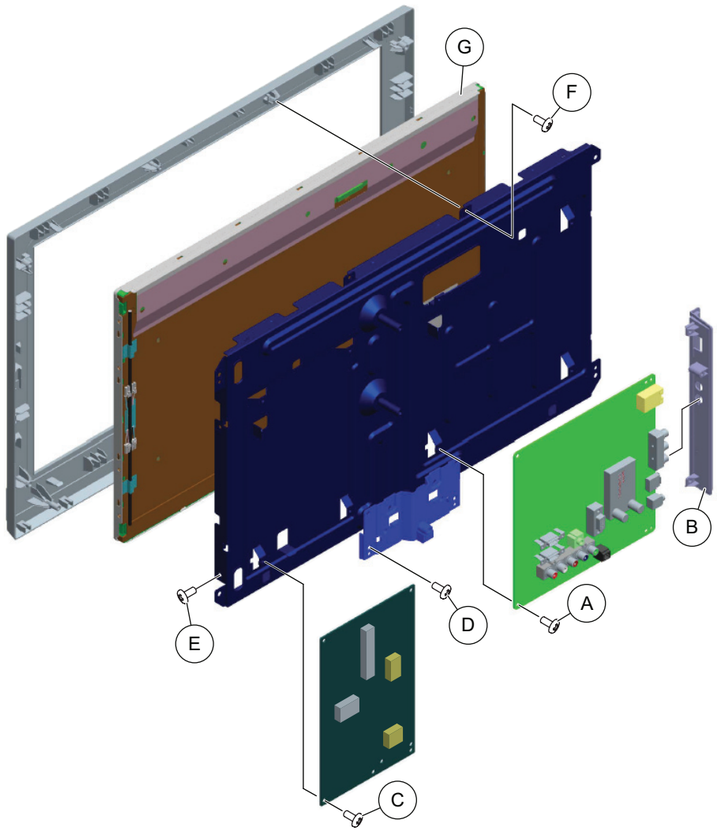


REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
101	4-264-257-01	REAR COVER BARE (GT32) (KDL-32BX325/32BX326/32BX425 ONLY)
101	4-264-263-01	REAR COVER BARE (GT40) (KDL-40BX425 ONLY)
102	4-264-259-01	COVER, UNDER (GT32) (KDL-32BX325/32BX326/32BX425 ONLY)
102	4-264-265-01	COVER, UNDER (GT40) (KDL-40BX425 ONLY)
103	4-264-258-01	BRACKET, SP L&R (GT32) (KDL-32BX325/32BX326/32BX425 ONLY)
103	4-264-264-01	BRACKET, SP L&R (GT40) (KDL-40BX425 ONLY)
104	1-858-341-11	LOUDSPEAKER (4X10CM) (ALL MODELS EXCEPT KDL-22BX325)
105	1-857-925-11	H1 BOARD, MOUNTED
106	4-264-270-01	KEY PAD (GT)
107	4-264-271-01	COVER, KEY (GT)
108	1-857-926-11	H2 BOARD, MOUNTED

1-3. A BOARD, LIPS22/GT32/GT40 (POWER) BOARD AND LCD PANEL REMOVAL

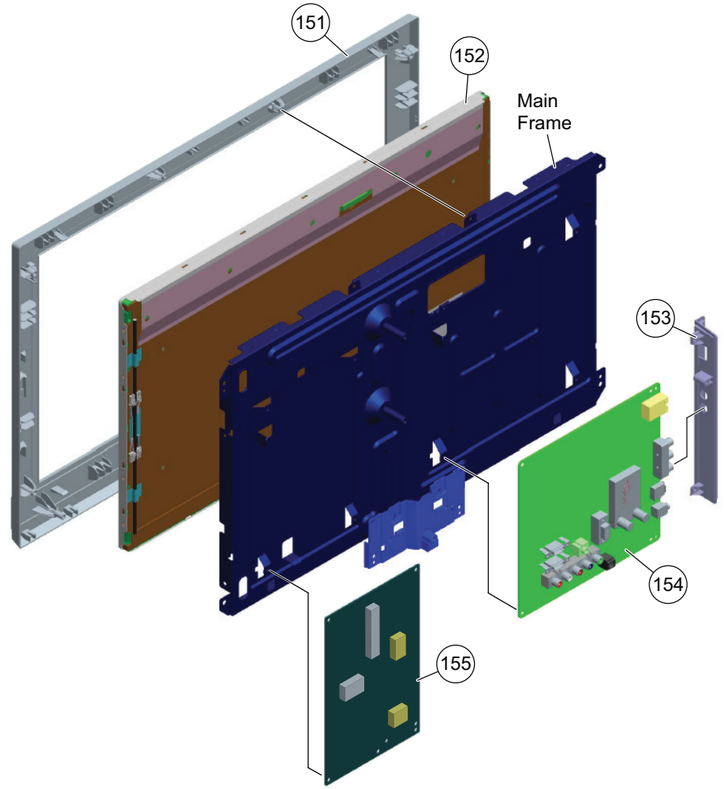
1-3-1. KDL-22BX325 ONLY

Ⓐ Remove 4 screws and disconnect 4 connectors from A Board to detach from Main Frame
Ⓑ Release 2 clips and slide-out Side Jack Bracket to detach from A Board
Ⓒ Remove 4 screws and disconnect 6 connectors from LIPS22 (Power) Board to detach from Main Frame
Ⓓ Remove 2 screws from Main Bracket to detach from Bezel
Ⓔ Remove 4 screws from Main Frame to detach from LCD Panel
Ⓕ Remove 2 screws from Main Frame to detach from Bezel
Ⓖ Carefully Lift up LCD Panel to remove from Bezel



NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
151	4-276-523-01	BEZEL (GT22)	
152	NA	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
153	4-264-268-01	COVER, IO JACK	

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
🔒 154	1-857-923-11	A BOARD, COMPLETE	
		After replacing the Main Board or the LCD Panel, you must update the software to the latest version. Instructions for updating the software are included with the software package on the Sony Electronics Service Information website	
155	1-857-927-11	LIPS22 (POWER) BOARD, COMPLETE	

1-3-2. KDL-32BX325/32BX326/32BX425 ONLY

Ⓐ Remove 4 screws and disconnect 4 connectors from A Board to detach from Left Vesa Bracket and Main Bracket

Ⓑ Release 2 clips and slide-out Side Jack Bracket to detach from A Board

Ⓒ Remove 6 screws and disconnect 3 connectors from GT32 (Power) Board to detach from Left and Right Vesa Brackets

Ⓓ Remove 4 screws from Bottom Frame to detach from Bezel and Bottom Bracket

Ⓔ Remove 2 screws from Right and Left Vesa Brackets to detach from Top Bracket

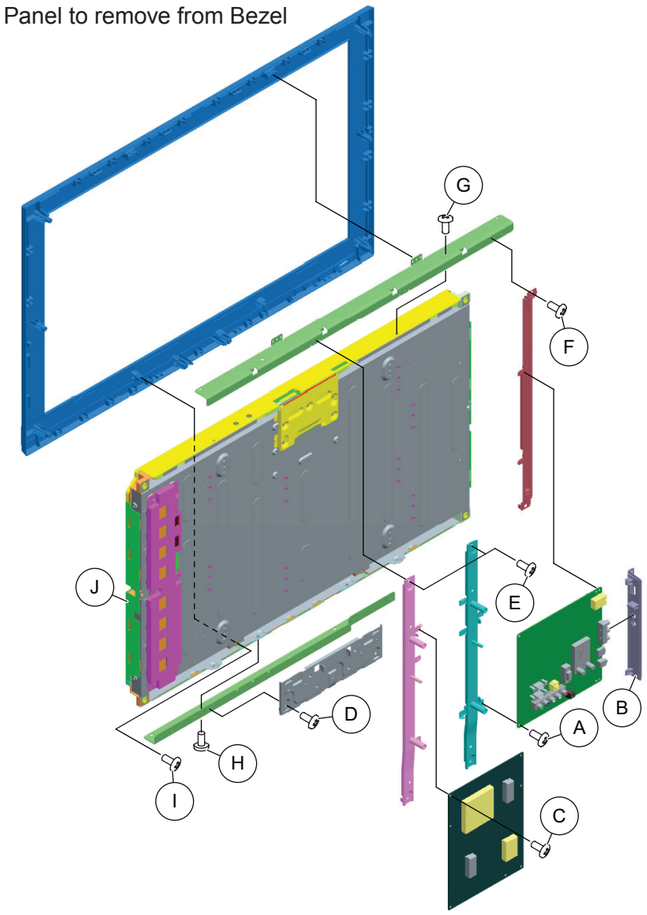
Ⓕ Remove 2 screws from Main Bracket to detach from Top and Bottom Bracket

Ⓖ Remove 4 screws from Top Bracket to detach from LCD Panel and Bezel

Ⓗ Remove 4 screws from Bottom Bracket to detach from LCD Panel

Ⓘ Remove 2 screws from LCD Panel to detach from Bezel

Ⓙ Carefully Lift up LCD Panel to remove from Bezel



NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
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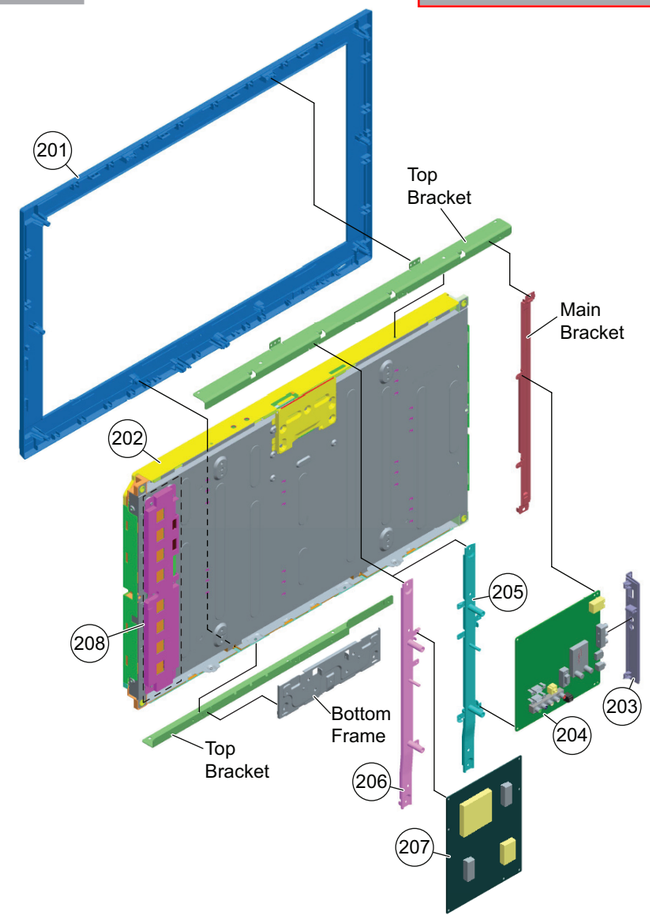


REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
201	4-276-524-01	BEZEL (GT32)	
202	NA	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
203	4-264-268-01	COVER, IO JACK	
🔒 204	1-857-922-11	A BOARD, COMPLETE	
		(KDL-32BX325/32BX326 ONLY)	
		After replacing the Main Board or the LCD Panel, you must update the software to the latest version. Instructions for updating the software are included with the software package on the Sony Electronics Service Information website	

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
🔒 204	1-857-921-11	A BOARD, COMPLETE	
		(KDL-32BX425 ONLY)	
		After replacing the Main Board or the LCD Panel, you must update the software to the latest version. Instructions for updating the software are included with the software package on the Sony Electronics Service Information website	
205	4-264-280-01	BRACKET, VESA L (32)	
206	4-264-279-01	BRACKET, VESA R (32)	
207	1-857-928-11	GT32 (POWER) BOARD, COMPLETE	
208	1-857-930-11	INVERTER BOARD, COMPLETE	
		(KDL-32BX325/32BX326 ONLY)	

1-3-3. KDL-40BX425 ONLY

Ⓐ Remove 6 screws and disconnect 3 connectors from GT40 (Power) Board to detach from LCD Panel

Ⓑ Remove 4 screws and disconnect 4 connectors from A Board to detach from Main Bracket and Main Top and Bottom Brackets

Ⓒ Release 2 clips and slide-out Side Jack Bracket to detach from A Board

Ⓓ Remove 4 screws from Main Top and Bottom Brackets to detach from Left Vesa Bracket and LCD Panel

Ⓔ Remove 2 screws from Main Bracket to detach from LCD Panel

Ⓕ Remove 2 screws from Vesa Bracket Support to detach from Left and Right Vesa Brackets

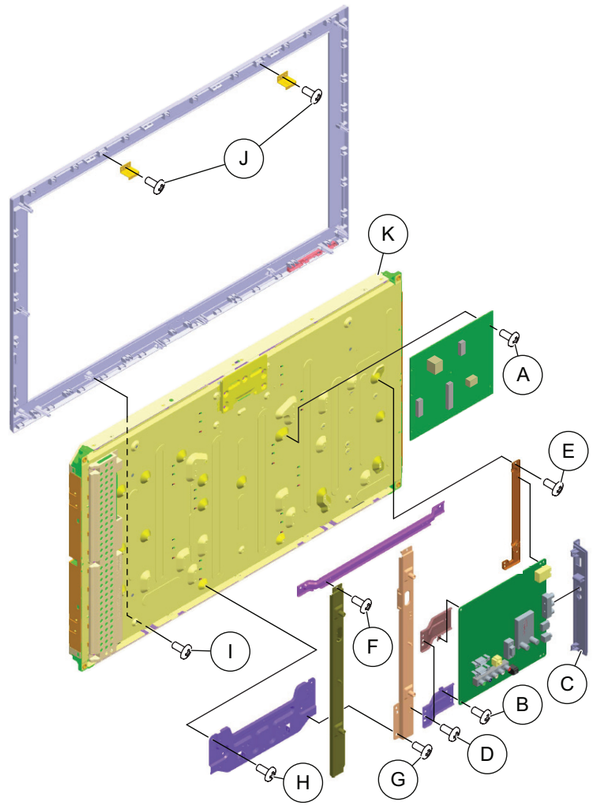
Ⓖ Remove 8 screws from Left and Right Vesa Bracket to detach from Bottom Frame and LCD Panel

Ⓗ Remove 6 screws from Bottom Frame to detach from LCD Panel and Bezel

Ⓘ Remove 2 screws from LCD Panel to detach from Bezel

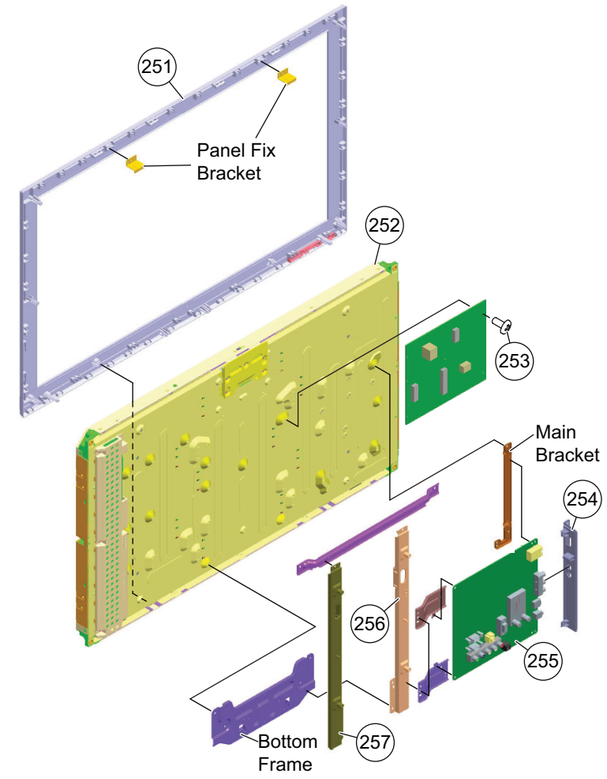
Ⓙ Remove 2 screws to detach Panel Fix Brackets from Bezel

Ⓚ Carefully Lift up LCD Panel to remove from Bezel



NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
251	4-276-525-01	BEZEL (GT40)	
252	NA	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
253	1-857-929-11	GT40 (POWER) BOARD, COMPLETE	
254	4-264-268-01	COVER, IO JACK	

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
🔒 255	1-857-921-11	A BOARD, COMPLETE	
		After replacing the Main Board or the LCD Panel, you must update the software to the latest version. Instructions for updating the software are included with the software package on the Sony Electronics Service Information website	
256	4-264-285-01	BRACKET, VESA R (40)	
257	4-264-286-01	BRACKET, VESA R (40)	

1-4. CLEANING THE LCD PANEL ASSEMBLY

CAUTION: When cleaning the TV, be sure to unplug the power cord to avoid any chance of electric shock.

Clean the cabinet of the TV with a dry soft cloth.

Wipe the LCD screen gently with a soft cloth.

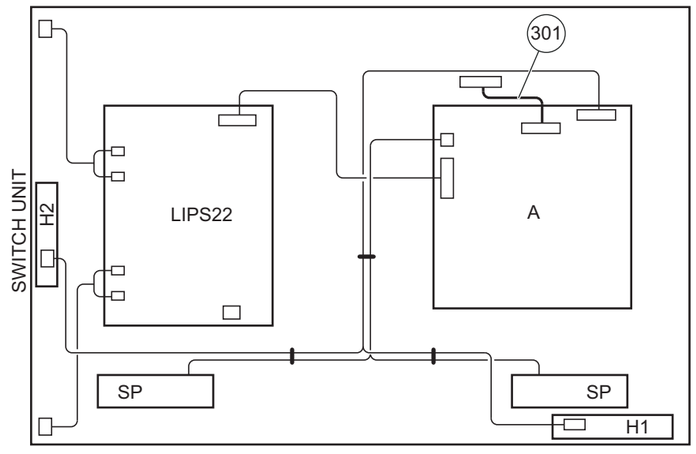
- Stubborn stains may be removed with a cloth slightly moistened with a solution of mild soap and warm water.
- If using a chemically pretreated cloth, please follow the instruction provided on the package.
- Never use strong solvents such as a thinner, alcohol or benzine for cleaning.
- Periodic vacuuming of the ventilation openings is recommended to ensure the proper ventilation.

1-5. SCREW LEGEND

SCREW INFORMATION IS NOT AVAILABLE AT THIS TIME

1-6. CONNECTORS

1-6-1. KDL-22BX325 ONLY



NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
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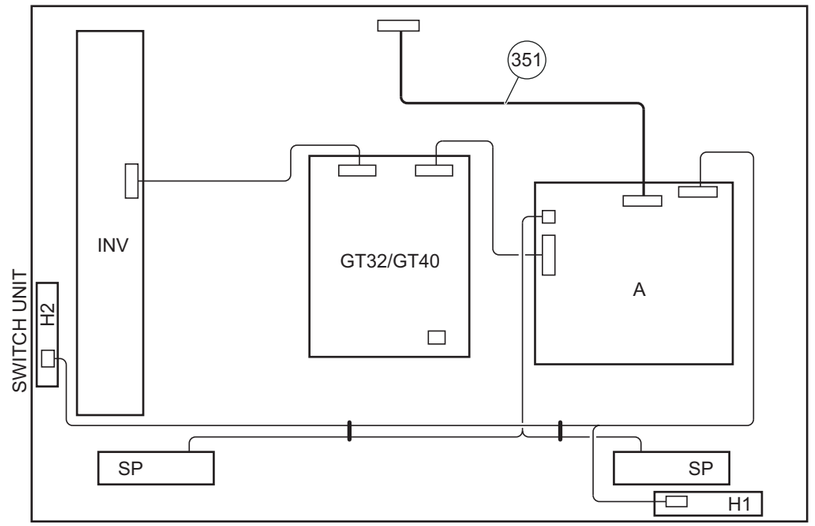
1-6-2. KDL-32BX325/32BX326/32BX425/40BX425 ONLY

Note: KDL-32BX425 and KDL-40BX425 have an external TCON. The Illustration below is for KDL-32BX325 and KDL-32BX326 with an internal TCON.



REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
301	1-910-103-67	(LVDS) CONNECTOR ASSEMBLY 22WXGA (KDL-22BX325 ONLY)

REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
351	1-910-103-65	(LVDS) CONNECTOR ASSEMBLY 32WXGA FFC (KDL-32BX325/32BX326 ONLY)
351	1-910-103-64	(LVDS) CONNECTOR ASSEMBLY 32FHD (KDL-32BX425 ONLY)
351	1-910-103-66	(LVDS) CONNECTOR ASSEMBLY 40FHD (KDL-40BX425 ONLY)

1-7. ACCESSORIES AND PACKING

	X-2580-963-1	BAG ASSEMBLY, SCREW
⚠	1-839-030-11	CORD, POWER (WITH CORE)
⚠	1-839-031-11	CORD, POWER (WITH CORE) (ALL MODELS EXCEPT KDL-32BX425)
	3-299-071-05	FLYER, SAFETY
	4-270-483-31	MANUAL, INSTRUCTION
*	4-275-368-11	SUPPLEMENT(STAND INSTALLATION)

1-8. MISCELLANEOUS

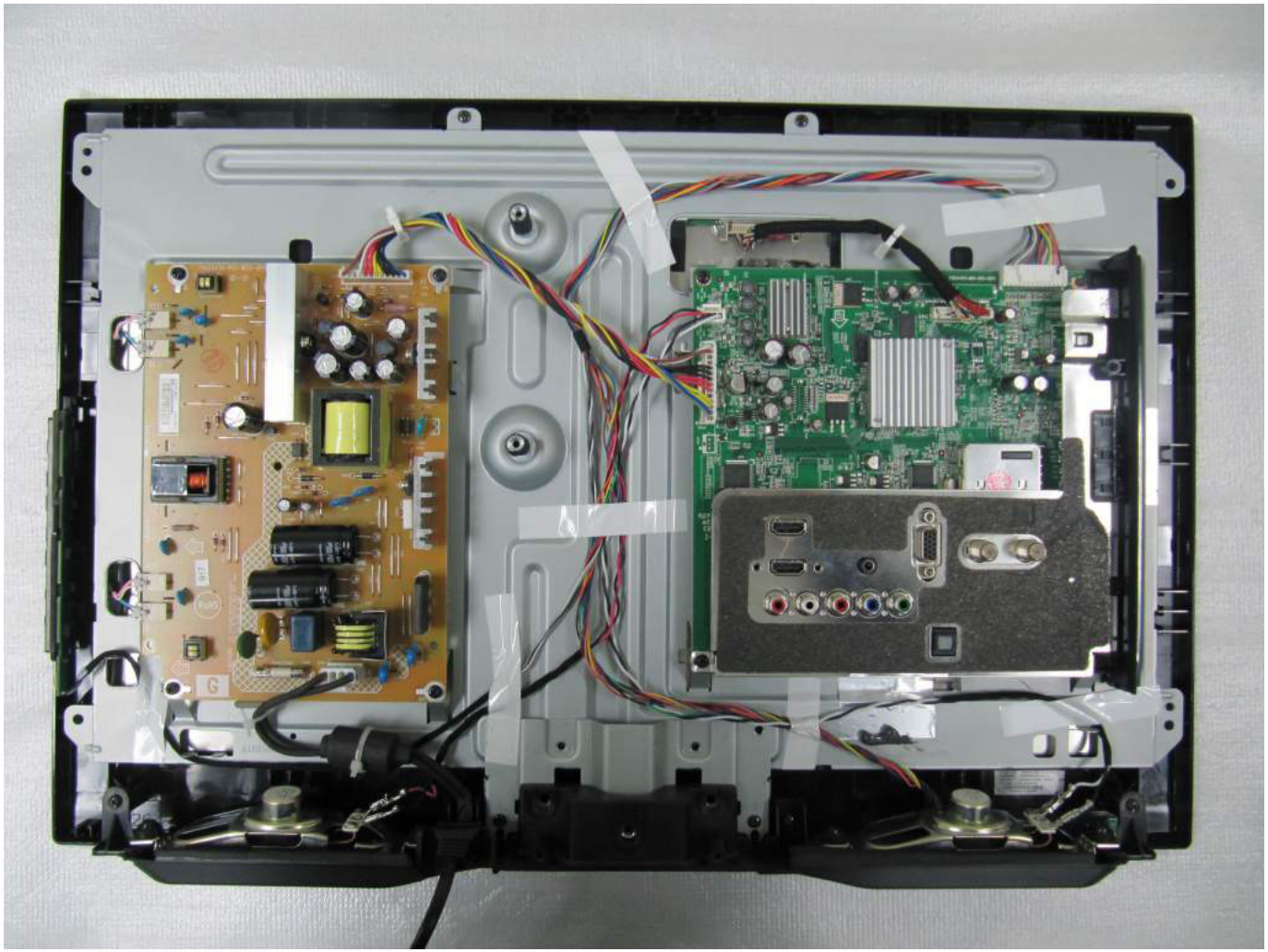
	6-717-145-01	IC H5TQ1G63BFR-H9CR-C
	6-717-160-01	IC HY27UF082G2B-TPCB
	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3 (KDL-32BX326 ONLY)
	X-2348-140-3	SUPPORT BELT KIT
	4-276-516-01	TAPE, AL BOTTOM
	4-276-515-01	TAPE, AL SIDE
*	4-276-517-01	THERMAL PAD (22) (KDL-22BX325 ONLY)
*	4-276-518-01	THERMAL PAD (32) (KDL-32BX325/BX326/32BX425 ONLY)
*	4-276-519-01	THERMAL PAD (40) (KDL-40BX425 ONLY)

1-9. REMOTE COMMANDER

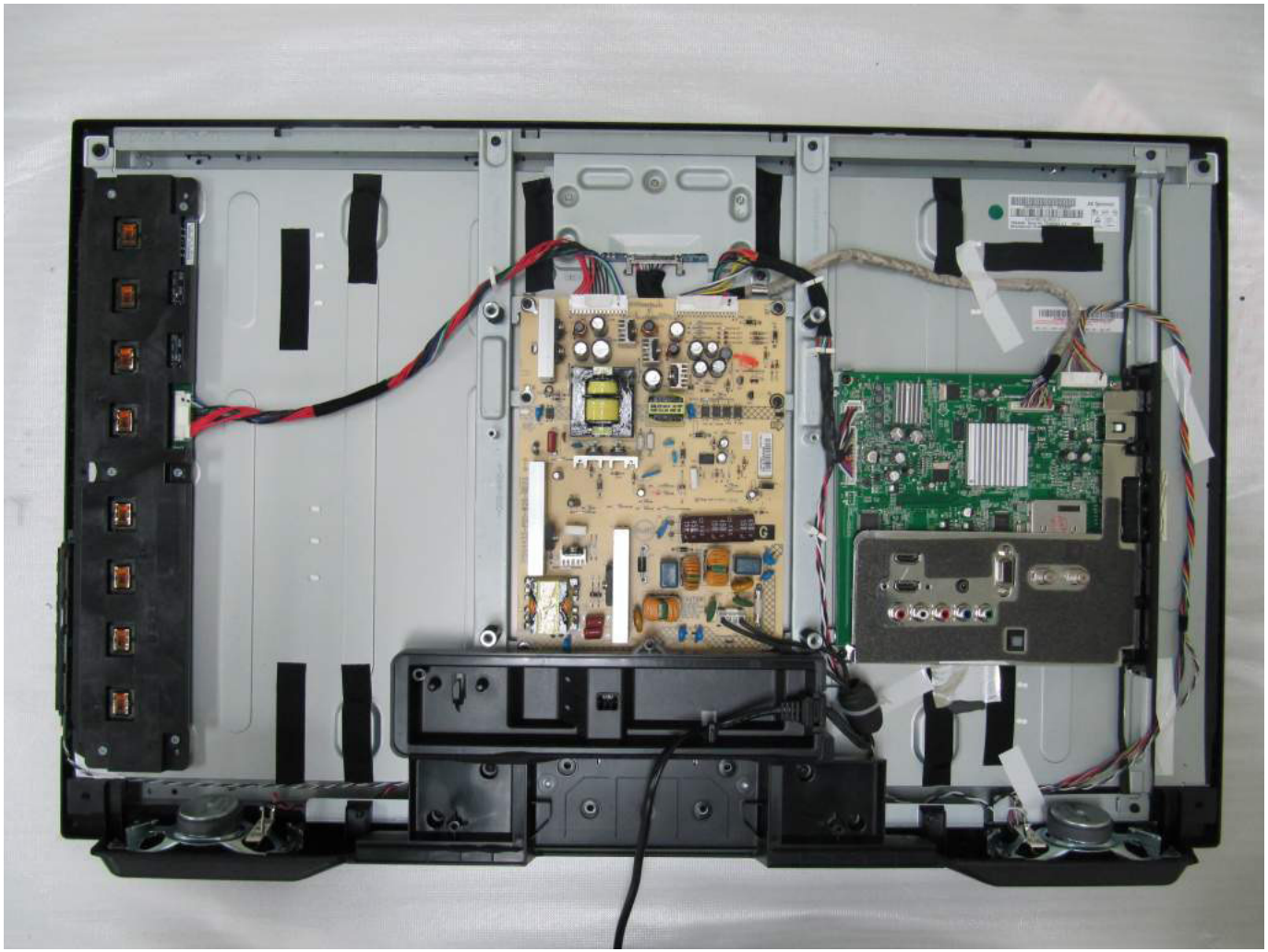
	1-489-462-11	REMOTE COMMANDER (RM-YD066)

1-10. WIRE DRESSING DIAGRAMS

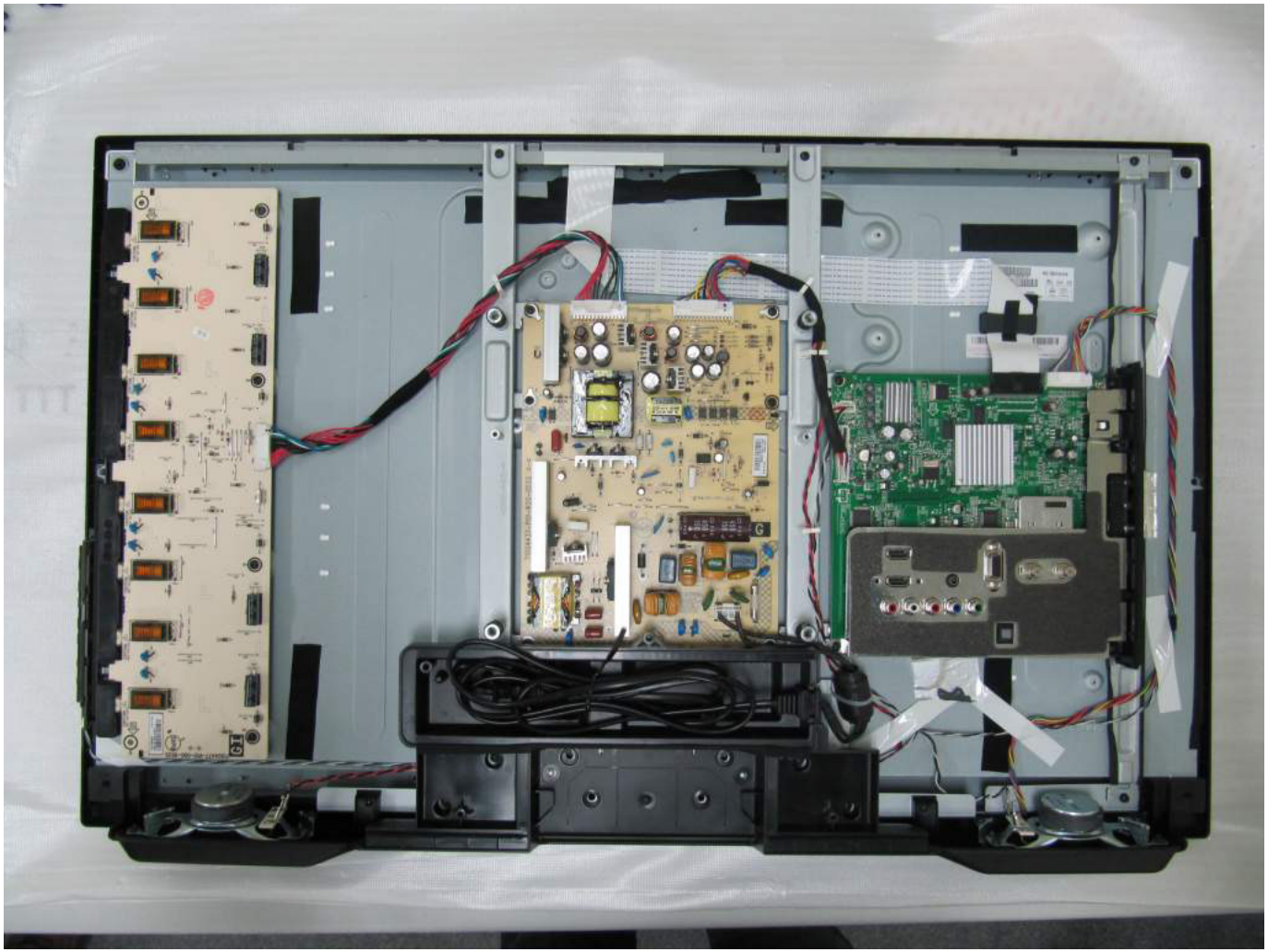
1-10-1.KDL-22BX325 ONLY



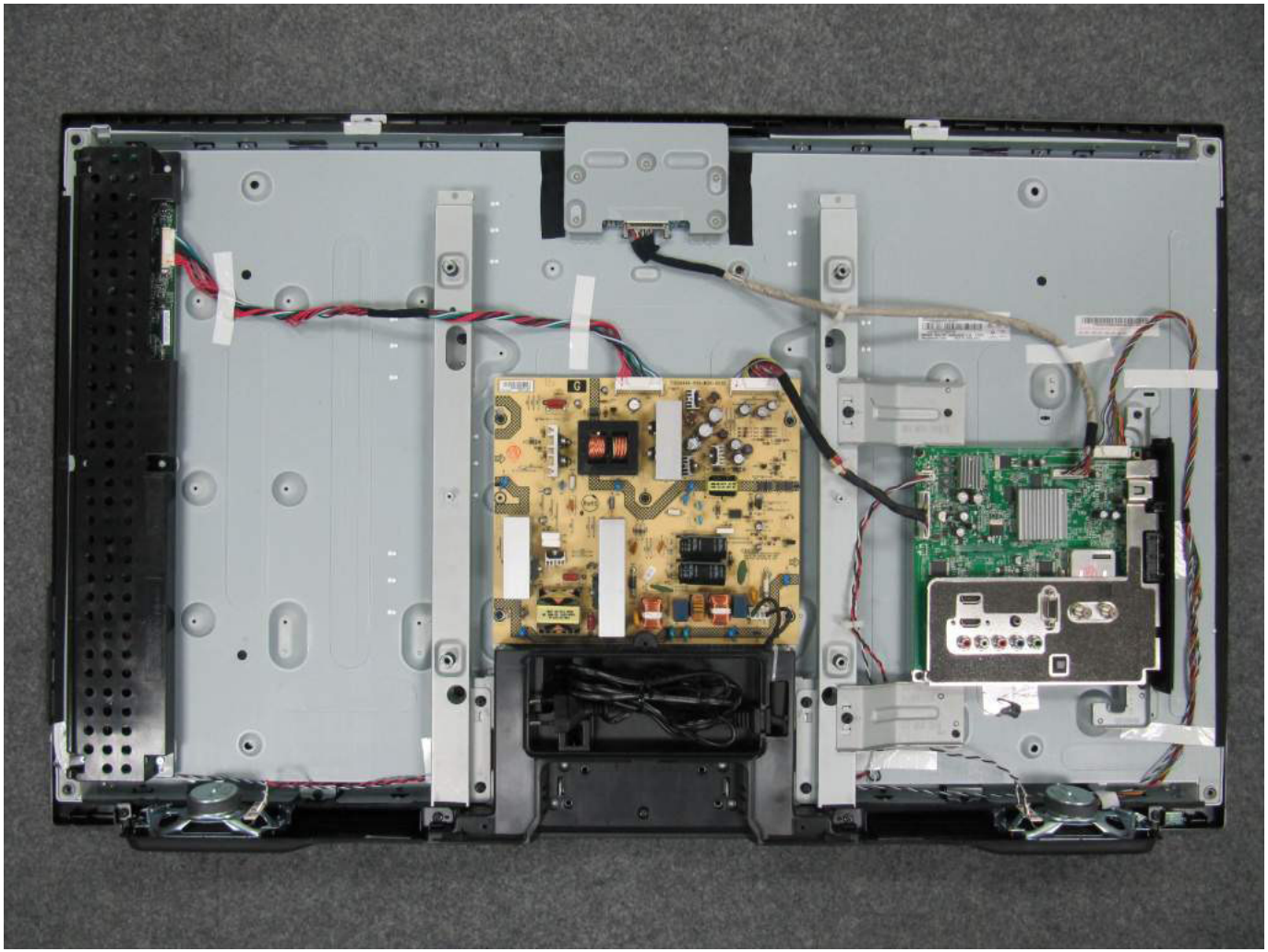
1-10-2.KDL-32BX325/32BX326 ONLY



1-10-3.KDL-32BX425 ONLY



1-10-4.KDL-40BX425 ONLY



SECTION 1: DIAGRAMS

1-1. CIRCUIT BOARDS LOCATION

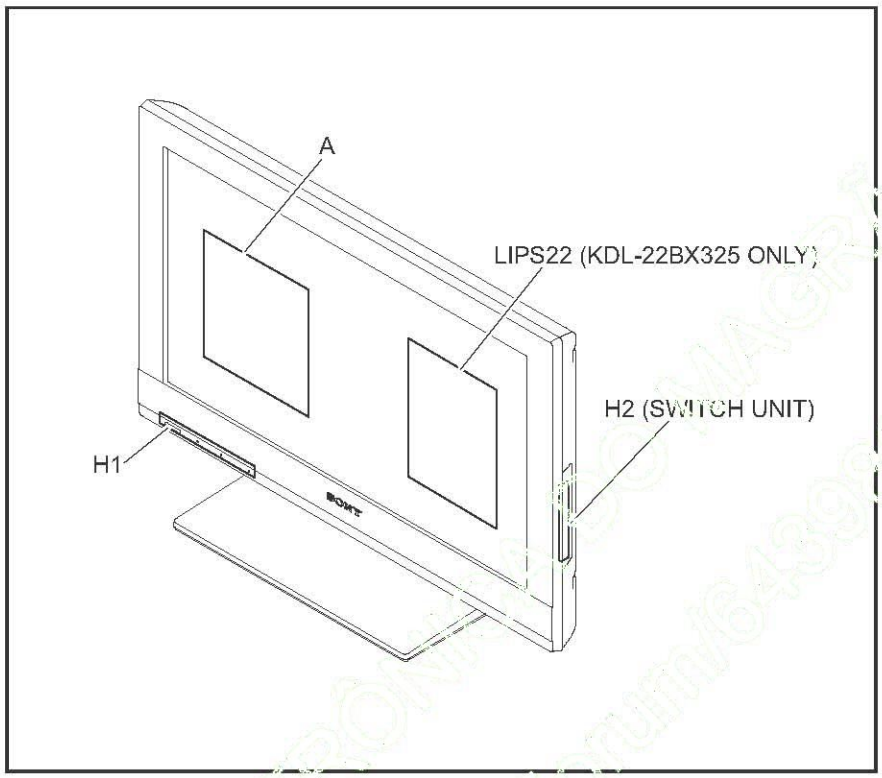


Figure 1-1. KDL-22BX325

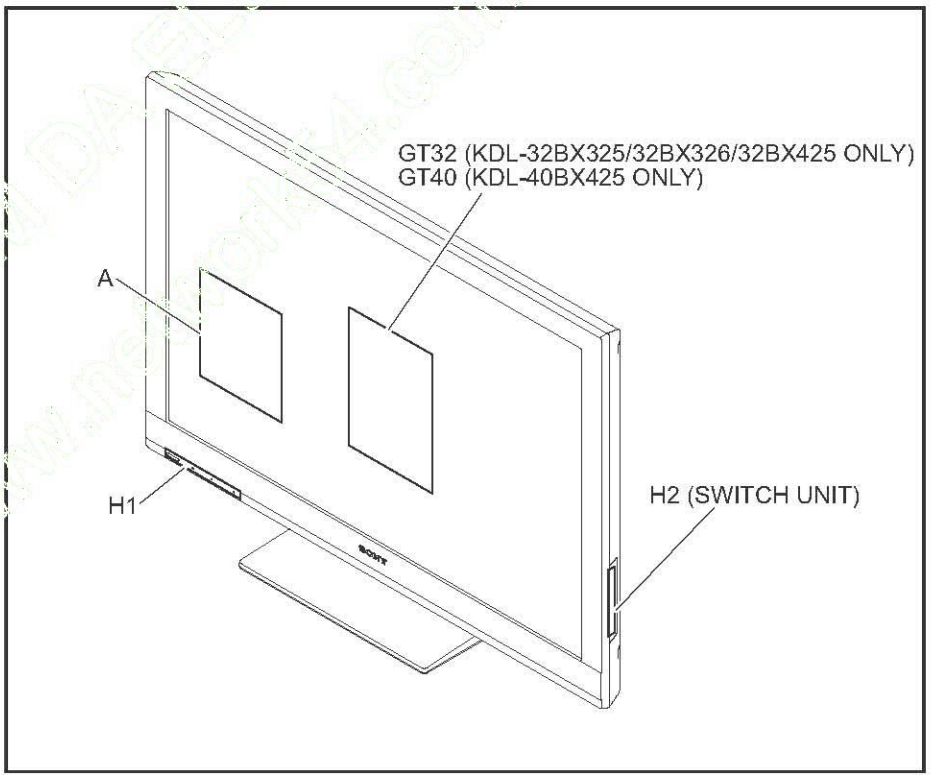


Figure 1-2. KDL-32BX325/32BX326/32BX425/40BX425

1-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS INFORMATION

All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. kΩ=1000Ω, MΩ=1000kΩ

Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm
Rating electrical power : $^1/_4$ W

$^1/_4$ W in resistance, $^1/_{10}$ W and $^1/_{16}$ W in chip resistance.

: nonflammable resistor

: fusible resistor

: internal component

: panel designation and adjustment for repair

: earth ground

: earth-chassis

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10MΩ digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibility.

: B+line.

: B-line. (Actual measured value may be different).

: signal path. (RF)

Circled numbers are waveform references.

The components identified by shading and ⚠ symbol are critical for safety. Replace only with part number specified.

The symbol indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
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REFERENCE INFORMATION

RESISTOR

: RN	METAL FILM	
: RC	SOLID	
: FPRD	NONFLAMMABLE CARBON	
: FUSE	NONFLAMMABLE FUSIBLE	
: RW	NONFLAMMABLE WIREWOUND	
: RS	NONFLAMMABLE METAL OXIDE	
: RB	NONFLAMMABLE CEMENT	
: ※	ADJUSTMENT RESISTOR	

CAPACITOR

: TA	TANTALUM
: PS	STYROL
: PP	POLYPROPYLENE
: PT	MYLAR
: MPS	METALIZED POLYESTER
: MPP	METALIZED POLYPROPYLENE
: ALB	BIPOLAR
: ALT	HIGH TEMPERATURE
: ALR	HIGH RIPPLE

COIL

: LF-8L MICRO INDUCTOR

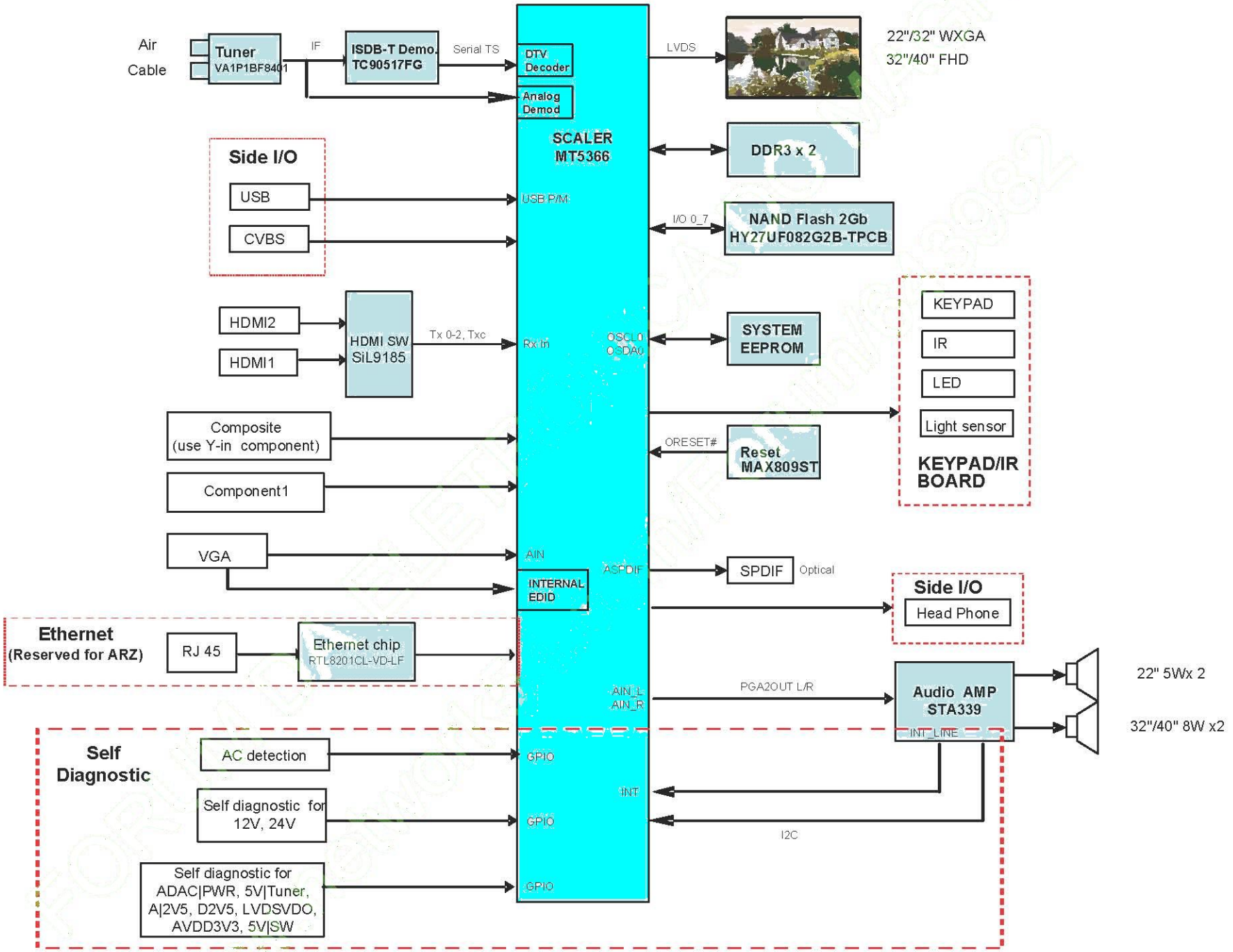
Terminal name of semiconductors in silk screen printed circuit (※)

	Device	Printed symbol	Terminal name	Circuit
1	Transistor		Collector / Base Emitter	
2	Transistor		Collector / Base Emitter	
3	Diode		Cathode / Anode	
4	Diode		Cathode / Anode (NC)	
5	Diode		Cathode / Anode (NC)	
6	Diode		Common / Anode Cathode	
7	Diode		Common / Anode Cathode	
8	Diode		Common / Anode Anode	
9	Diode		Common / Anode Anode	
10	Diode		Common / Cathode Cathode	
11	Diode		Common / Cathode Cathode	
12	Diode		Anode Cathode / Anode Anode / Cathode Anode	
13	Transistor (FET)		Drain Source / Gate	
14	Transistor (FET)		Drain Source / Gate	
15	Transistor (FET)		Source / Drain / Gate	
16	Transistor		Emitter / Collector / Base	
17	Transistor		C2 B1 E1 / E2 B2 C1	
18	Transistor		C1 B2 E2 / E1 B1 C2	
19	Transistor		C1 B2 E2 / E1 B1 C2	
20	Transistor		C1 B2 E2 / E1 B1 C2	
21	Transistor		E2 B1 E1 / C2 C1(B2)	
22	Transistor		(B2) / B1 E1 E2 / C1 C2	
23	Transistor		(B2) / E2 E1 B1 / C2 C1	
–	Discrete semiconductor			

Ver.1.6

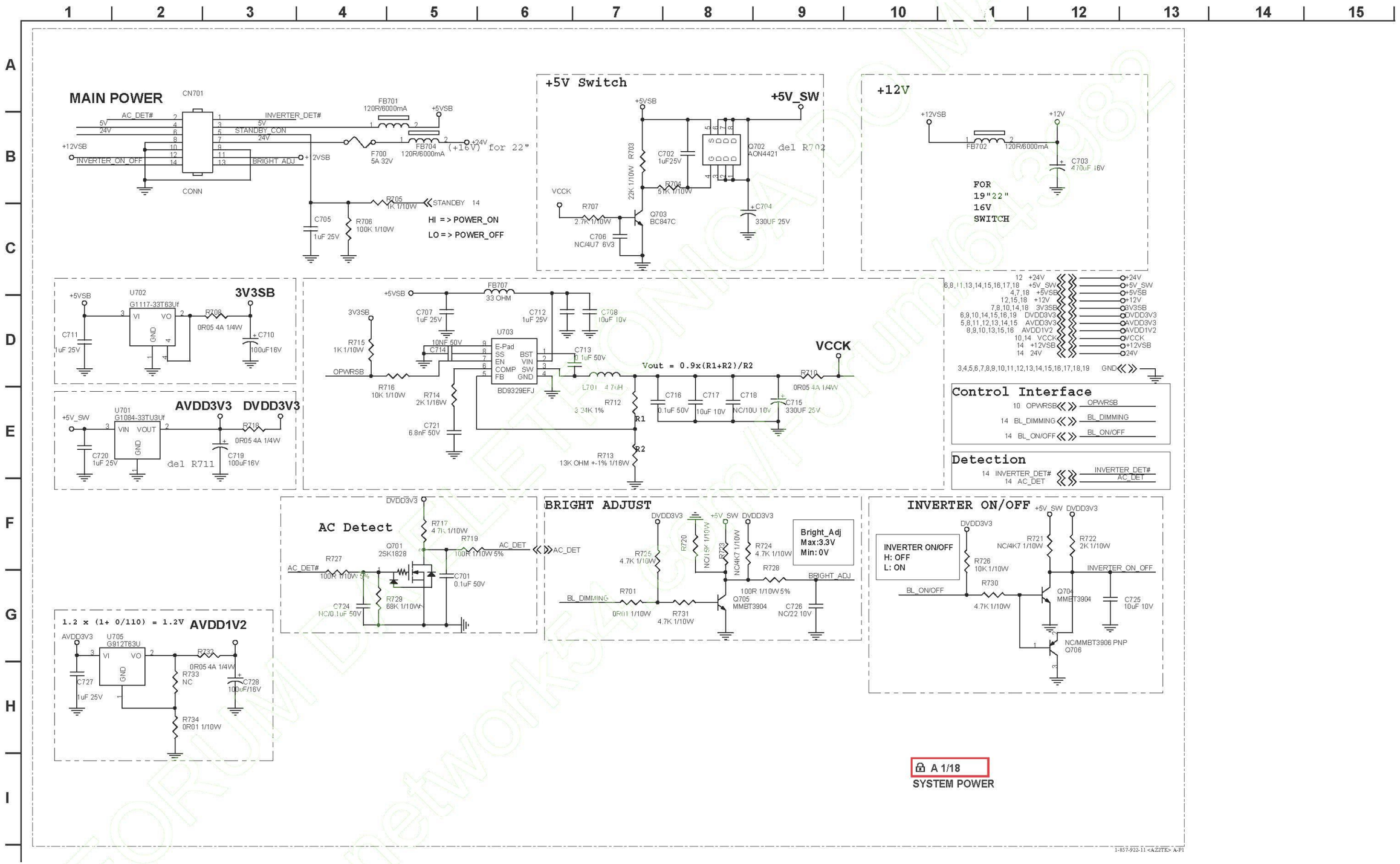
(Chip semiconductors that are not actually used are included.)

1-3. BLOCK DIAGRAM

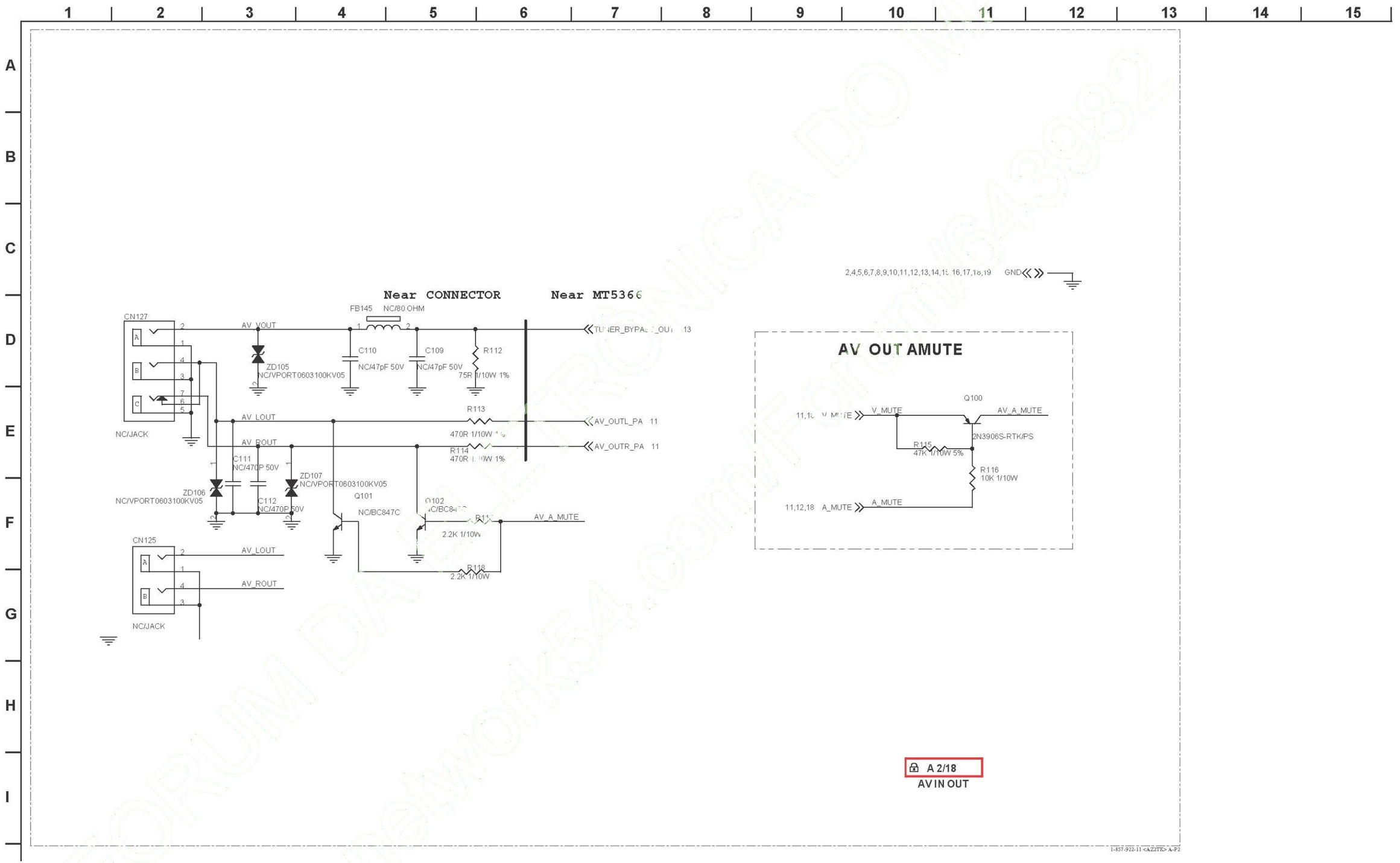


1-5. SCHEMATICS AND SUPPORTING INFORMATION

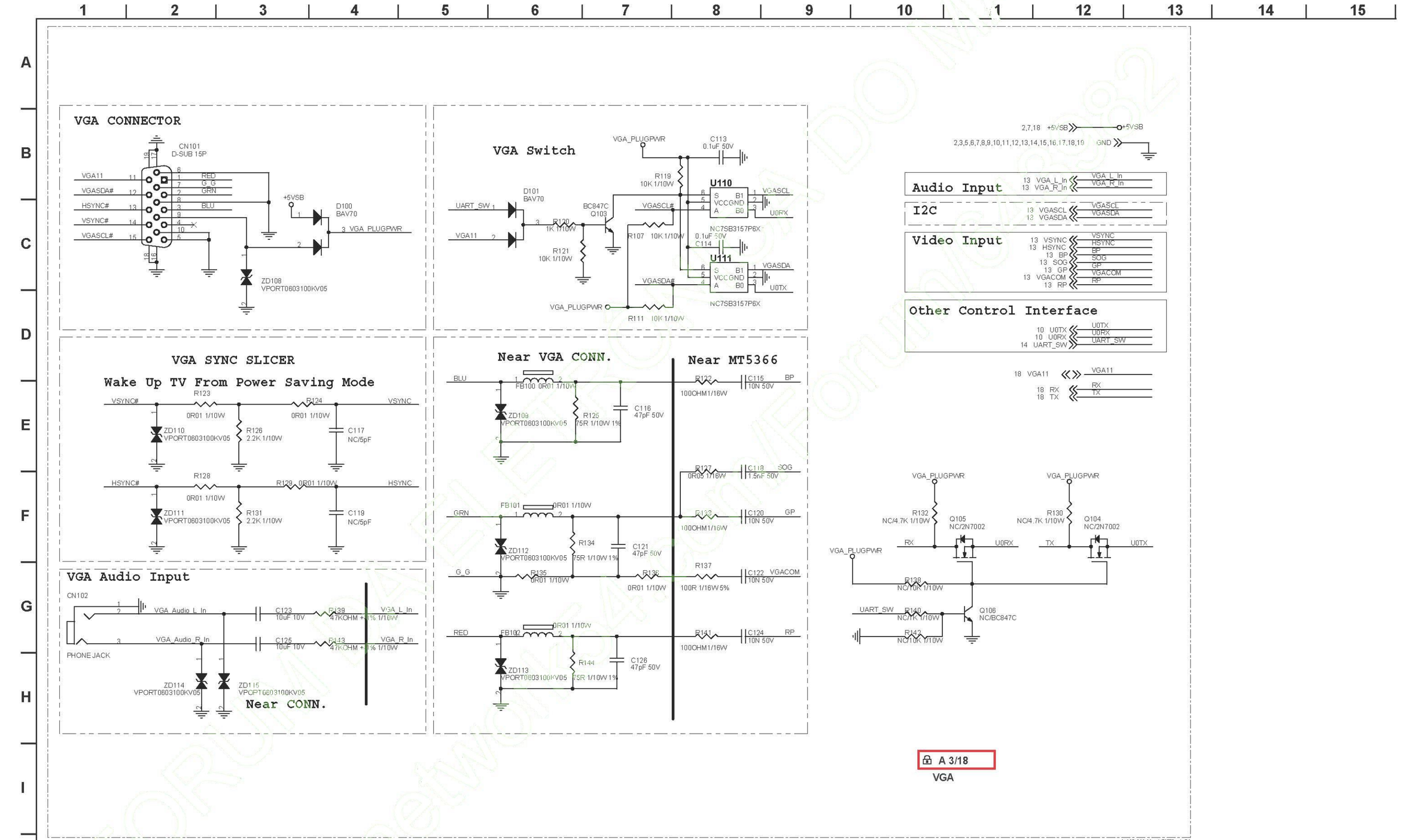
A BOARD SCHEMATIC DIAGRAM (1 OF 18)



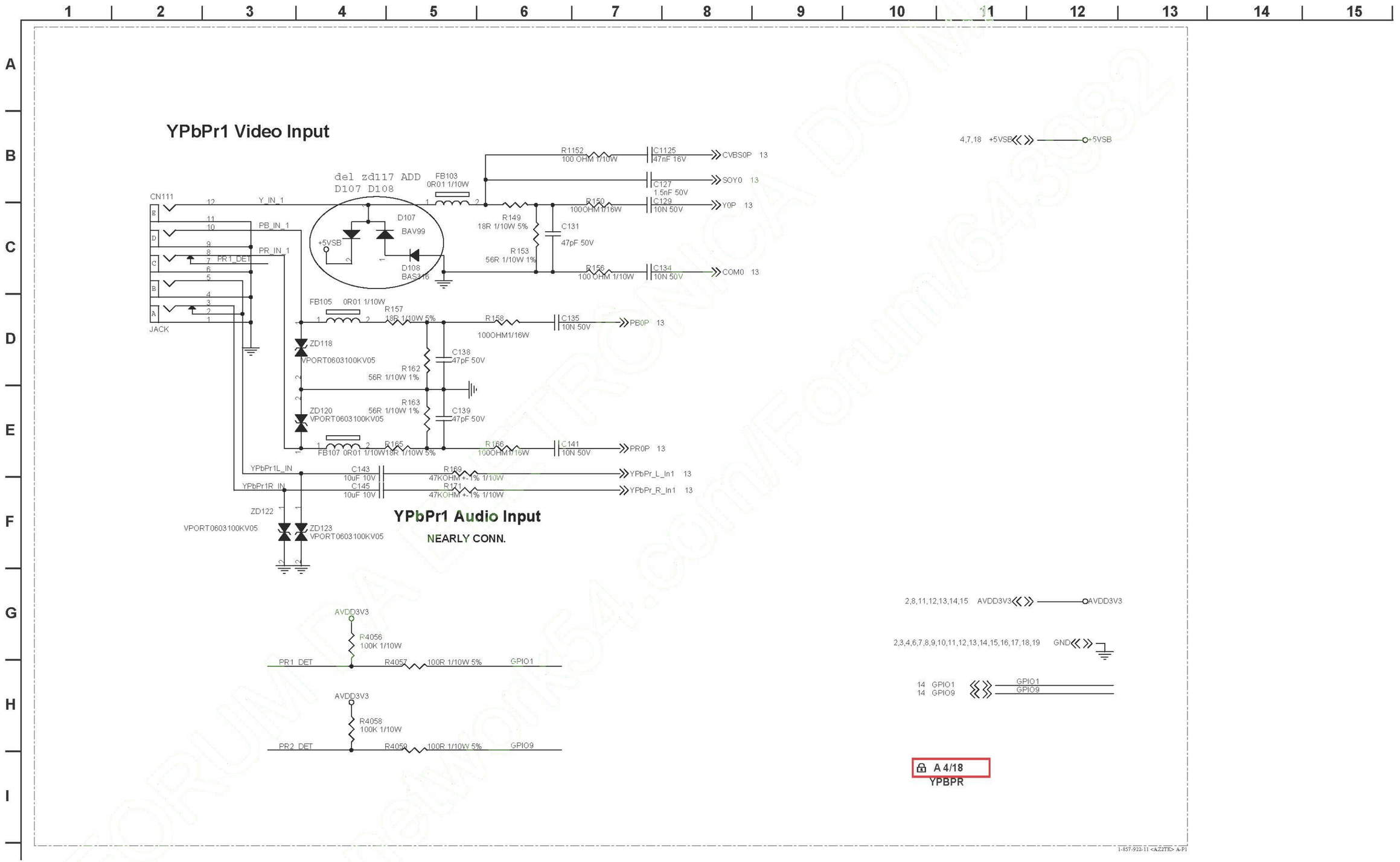
A BOARD SCHEMATIC DIAGRAM (2 OF 18)



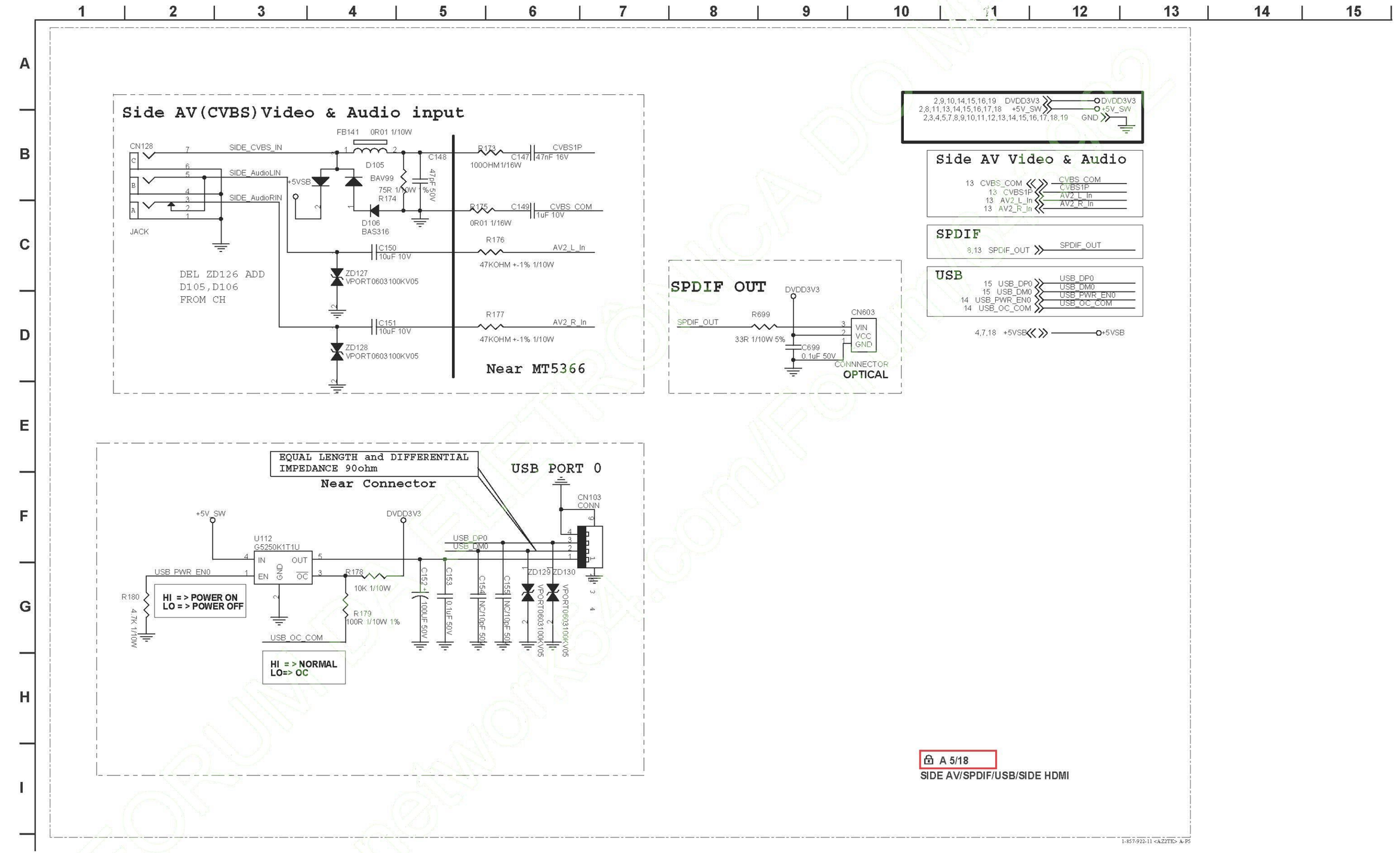
A BOARD SCHEMATIC DIAGRAM (3 OF 18)



A BOARD SCHEMATIC DIAGRAM (4 OF 18)



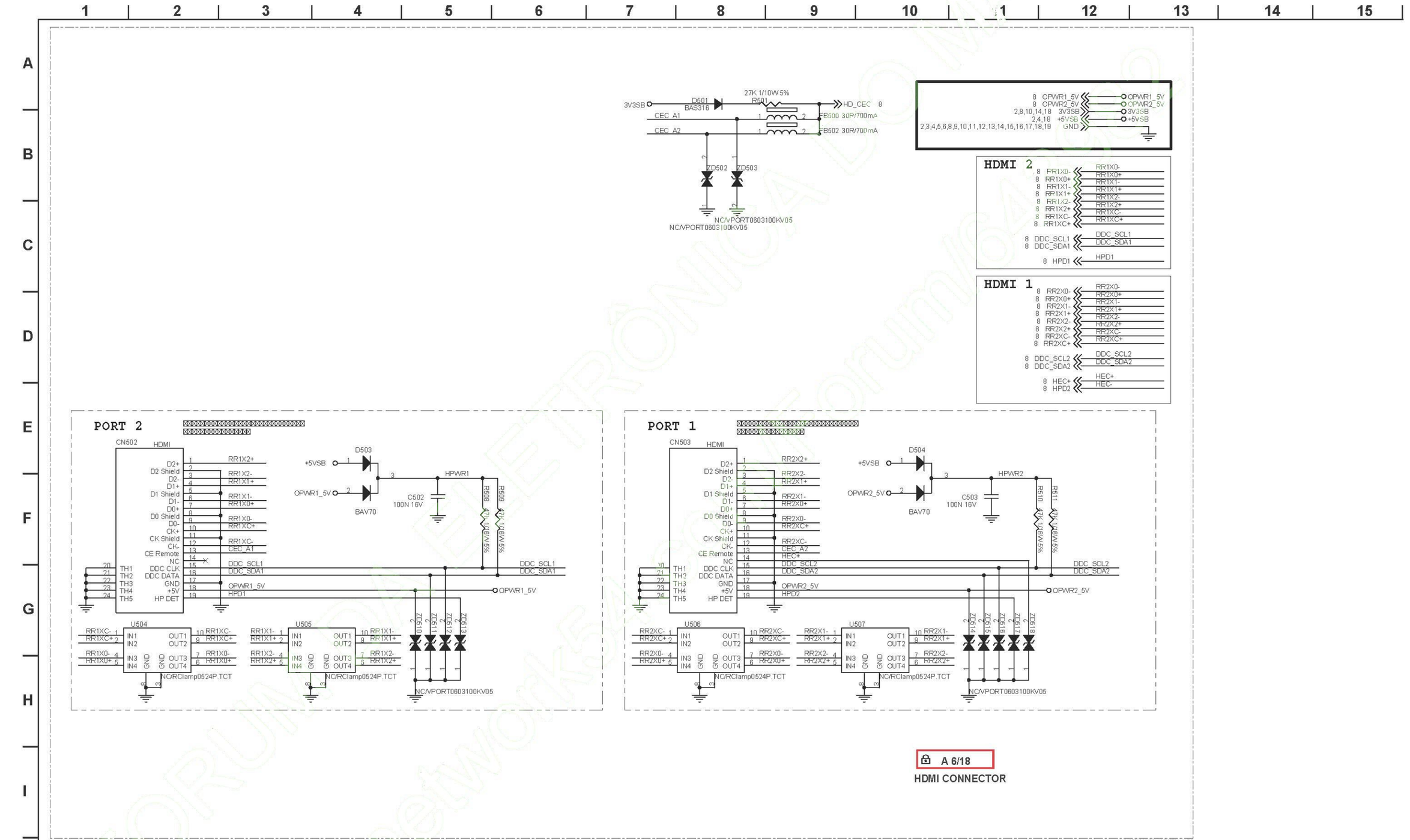
A BOARD SCHEMATIC DIAGRAM (5 OF 18)



A 5/18
SIDE AV/SPDIF/USB/SIDE HDMI

1-857-922-11 <AZ2TK> A-PS

A BOARD SCHEMATIC DIAGRAM (6 OF 18)

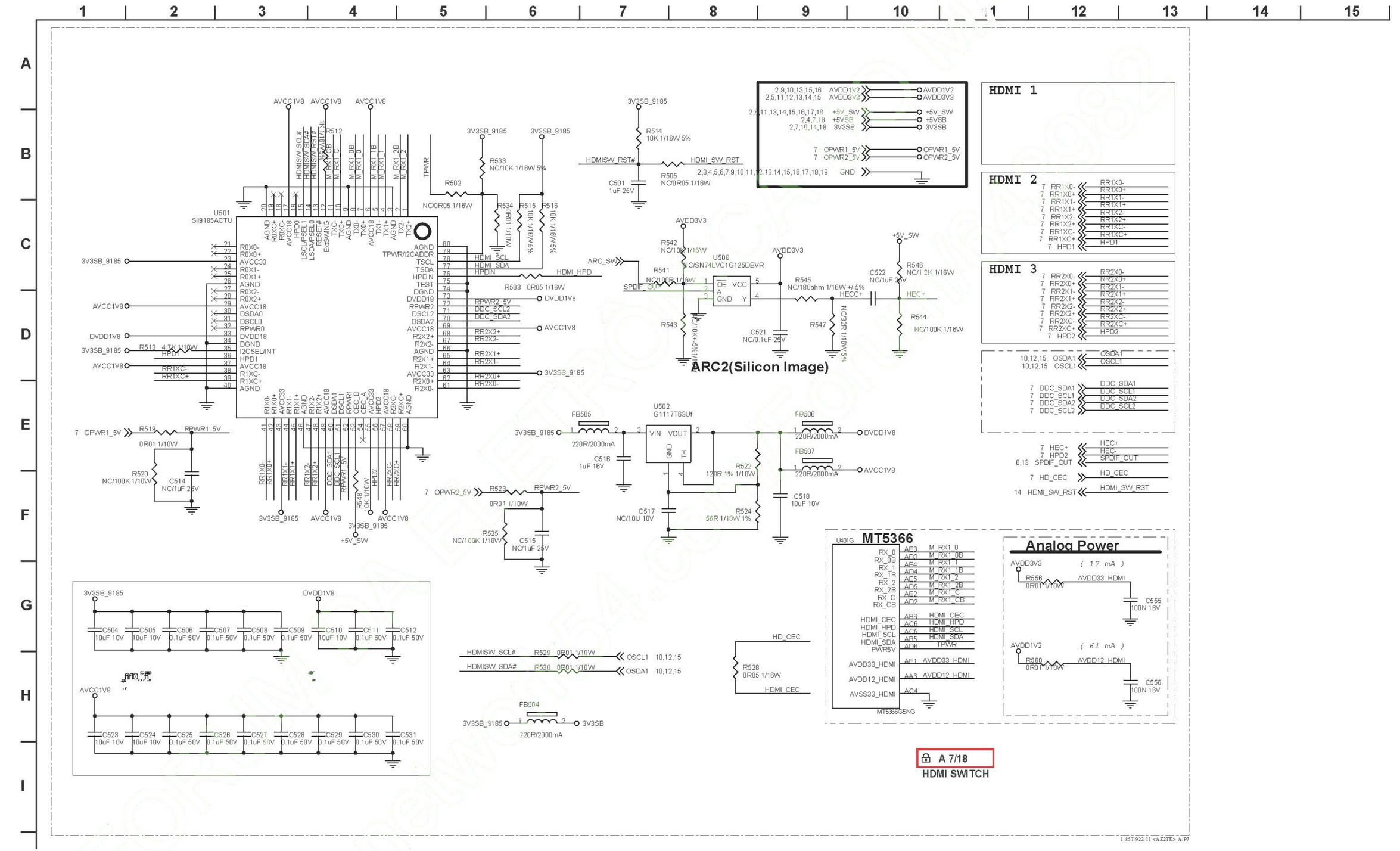


A 6/18

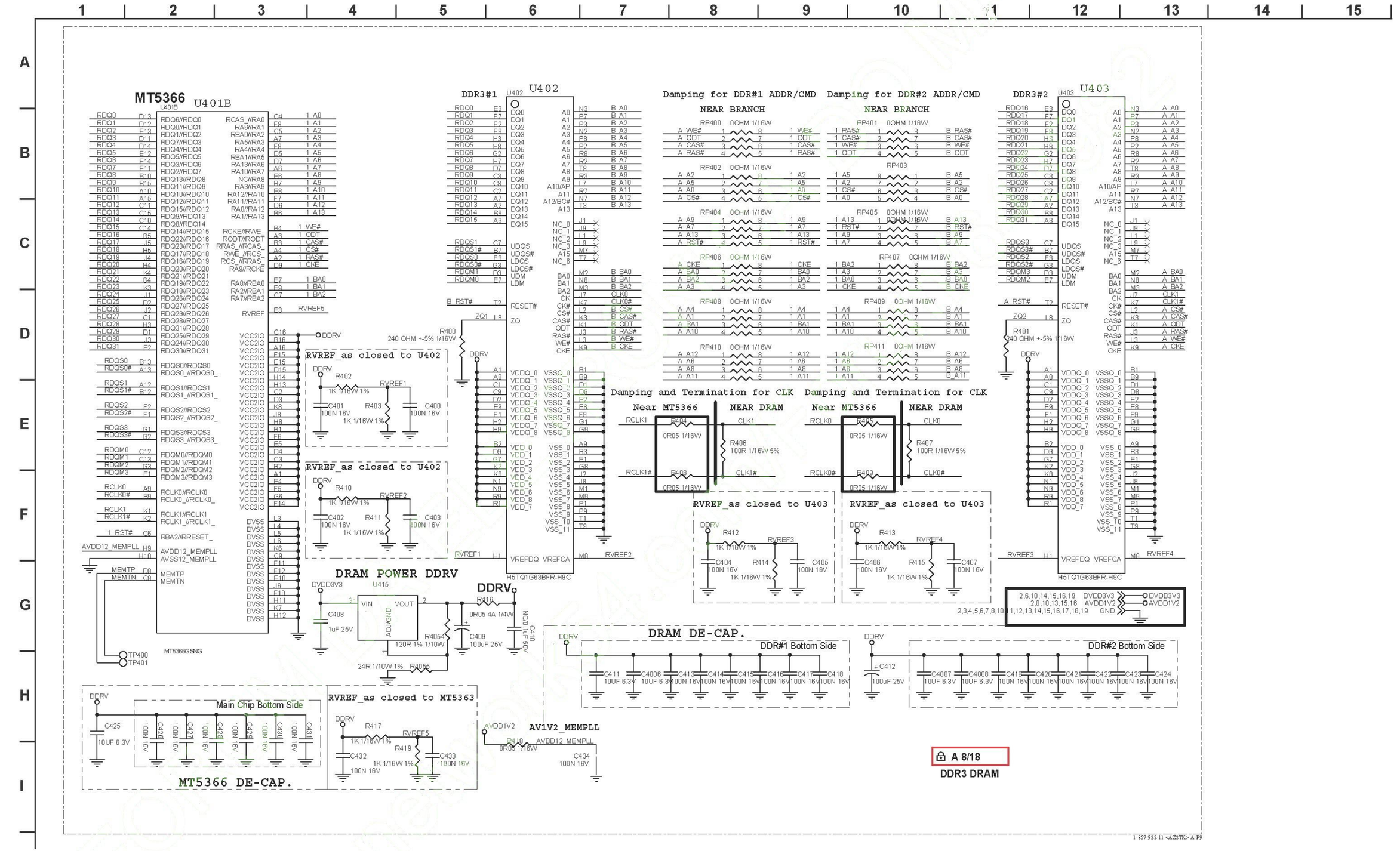
HDMI CONNECTOR

1-857-922-11 <AZ2TK> A-P7

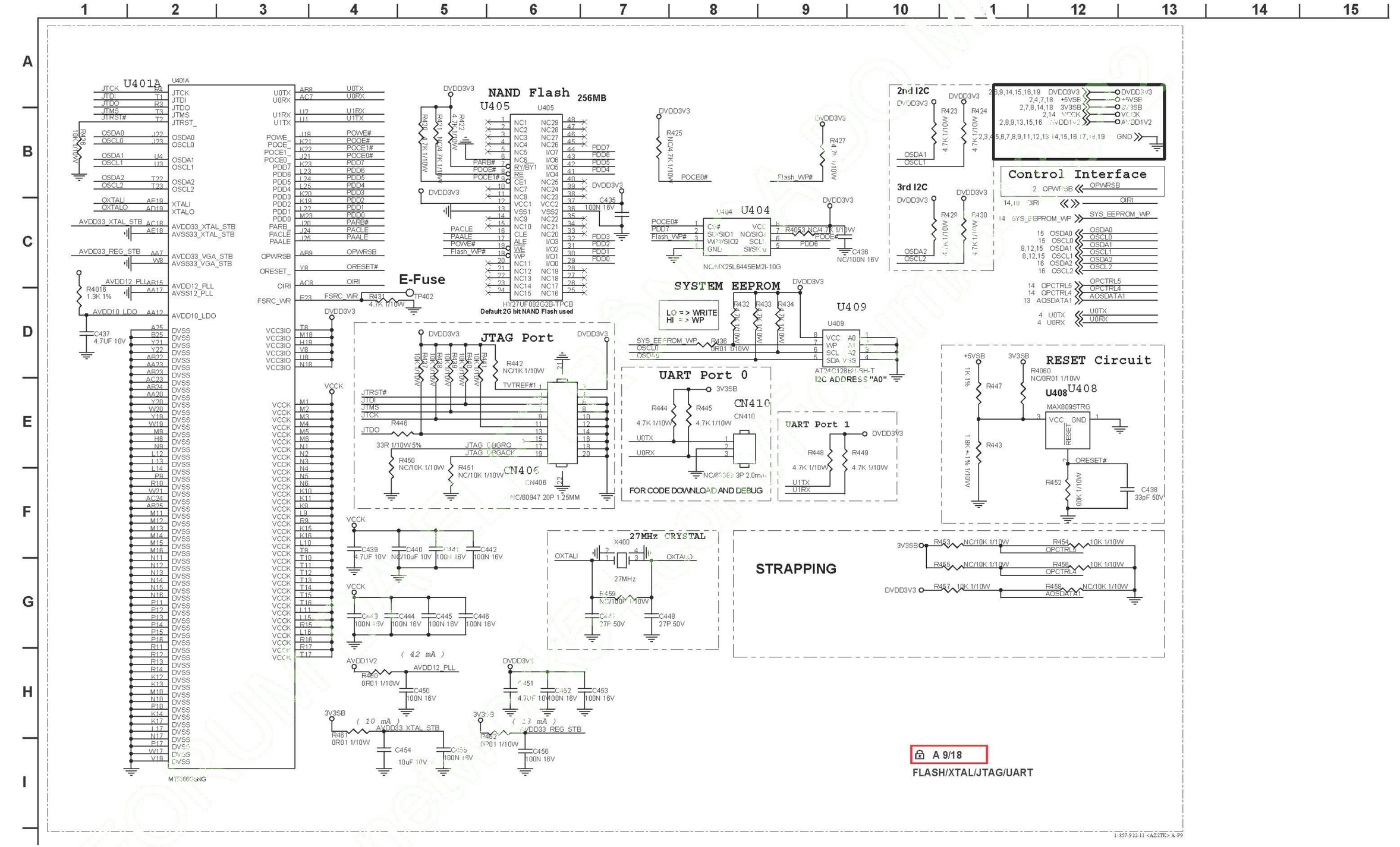
A BOARD SCHEMATIC DIAGRAM (7 OF 18)



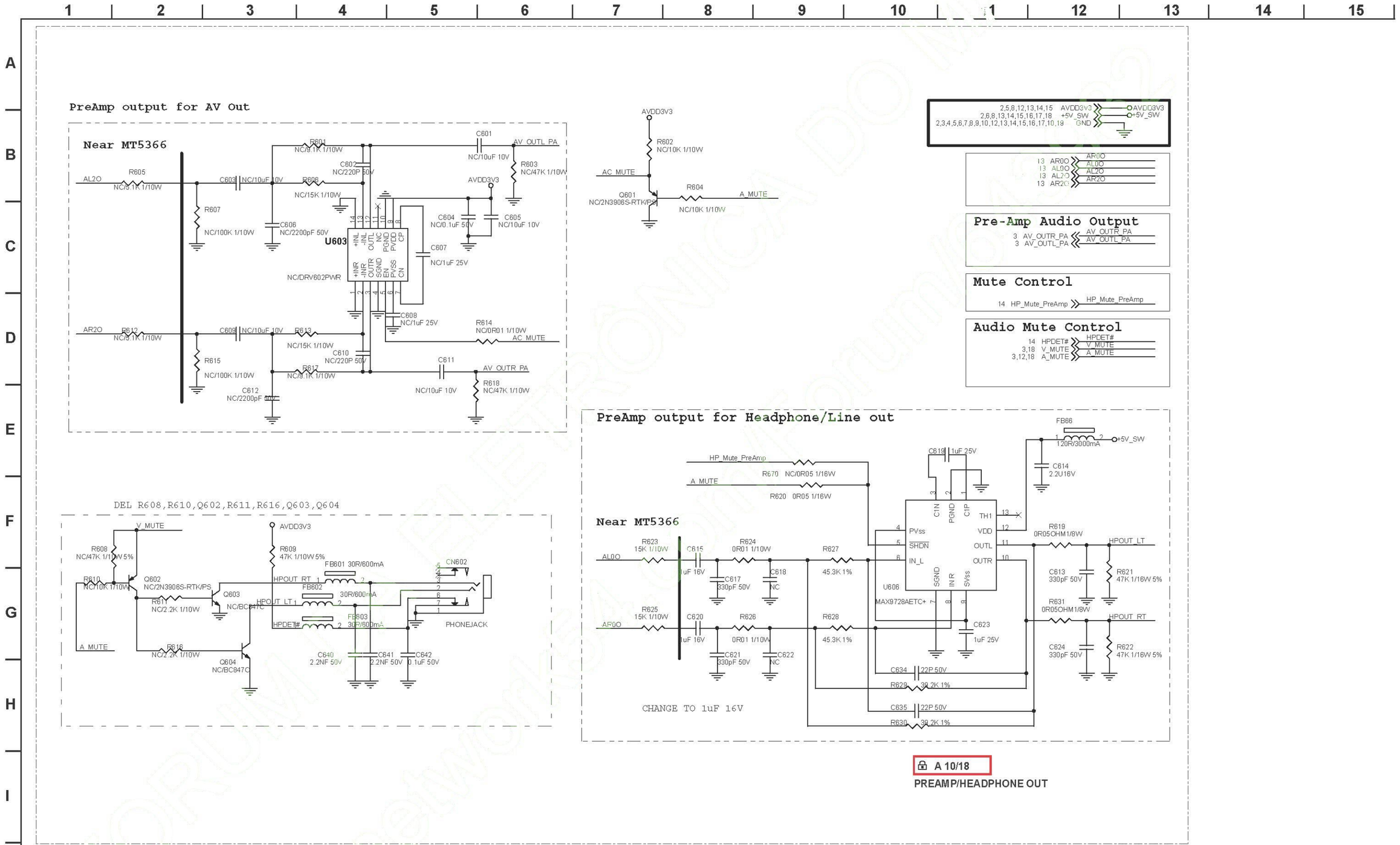
A BOARD SCHEMATIC DIAGRAM (8 OF 18)



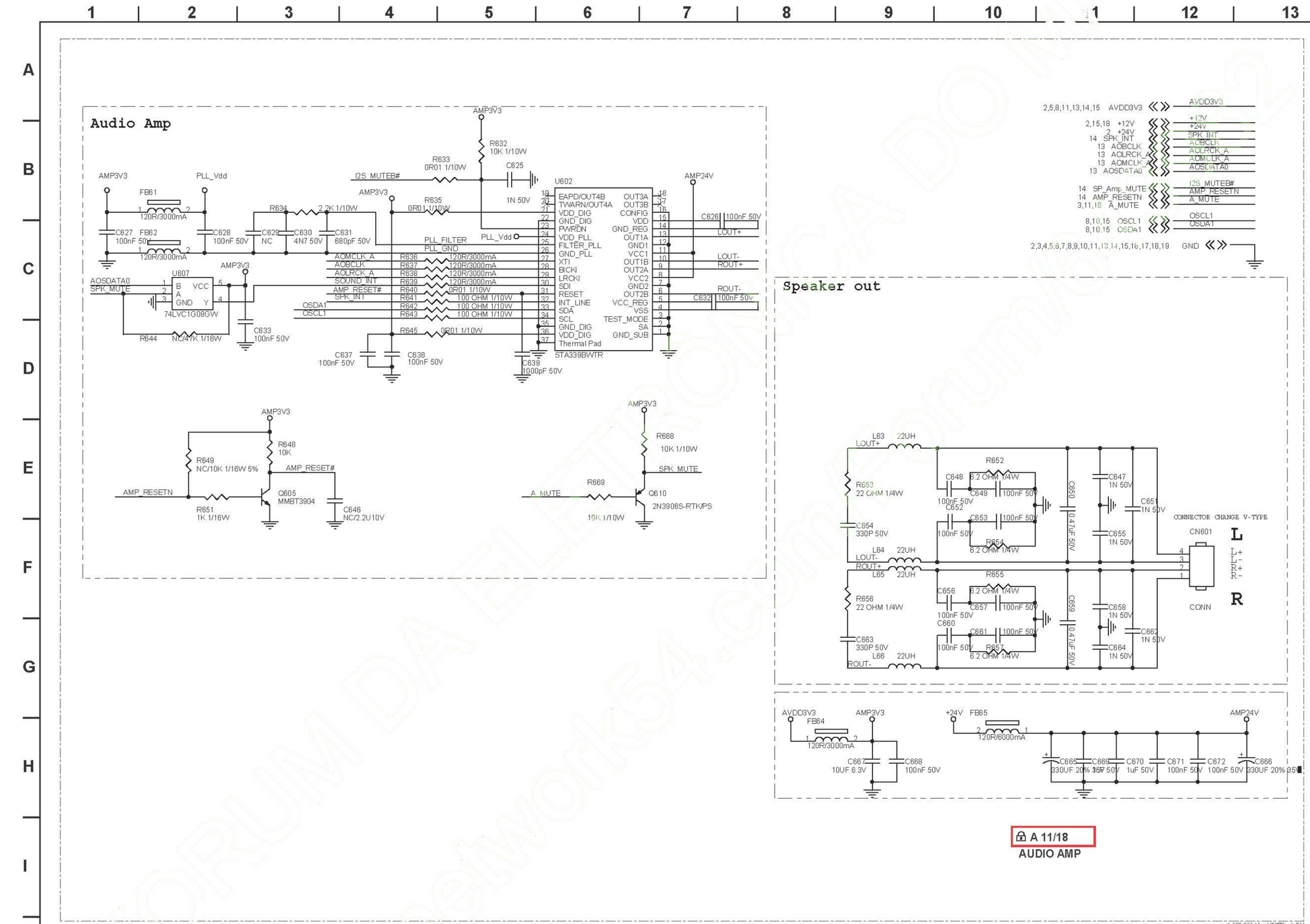
A BOARD SCHEMATIC DIAGRAM (9 OF 18)



A BOARD SCHEMATIC DIAGRAM (10 OF 18)



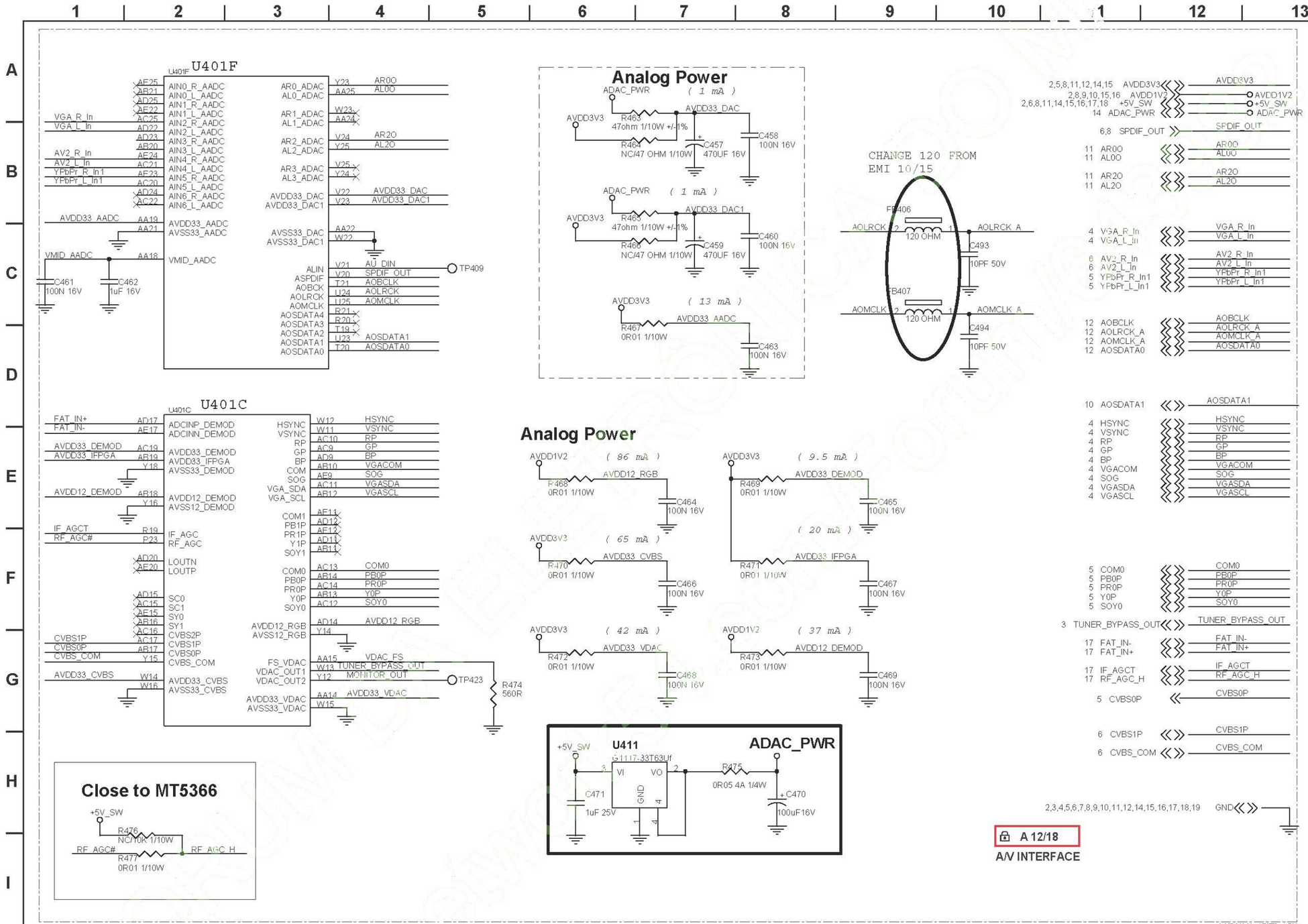
A BOARD SCHEMATIC DIAGRAM (11 OF 18)



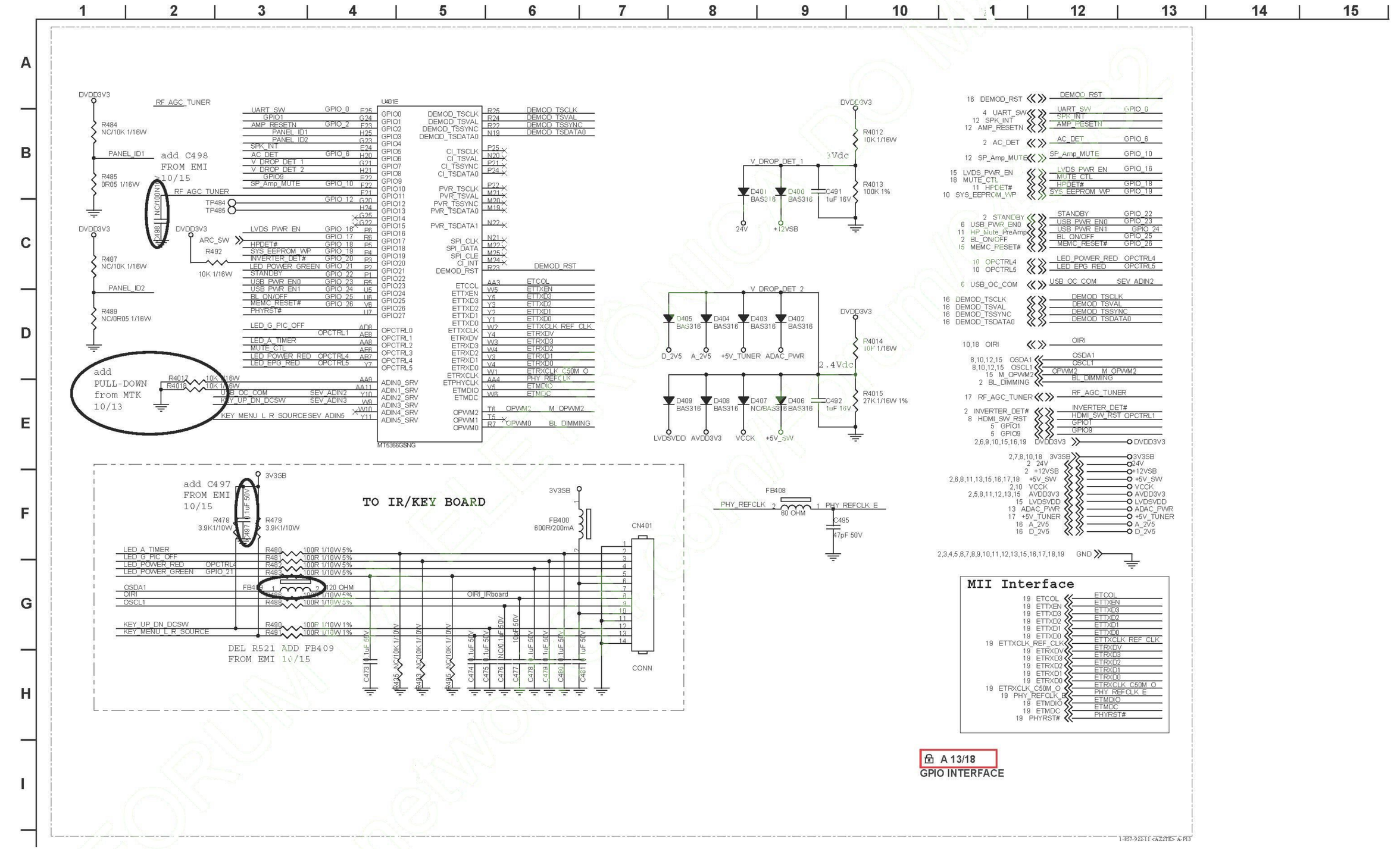
A 11/18
AUDIO AMP

1-857-922-11 <AZ2TK> A-P11

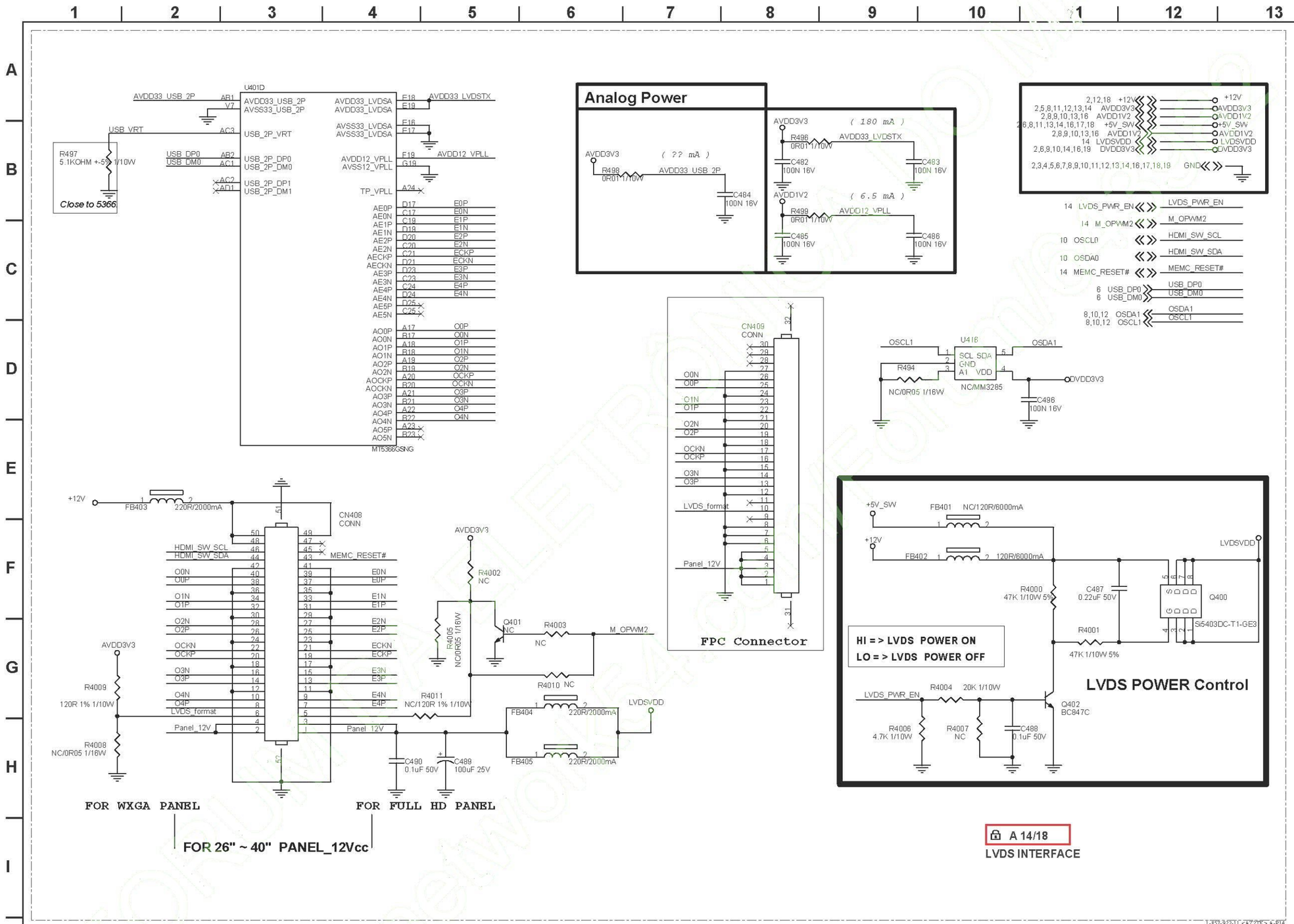
A BOARD SCHEMATIC DIAGRAM (12 OF 18)



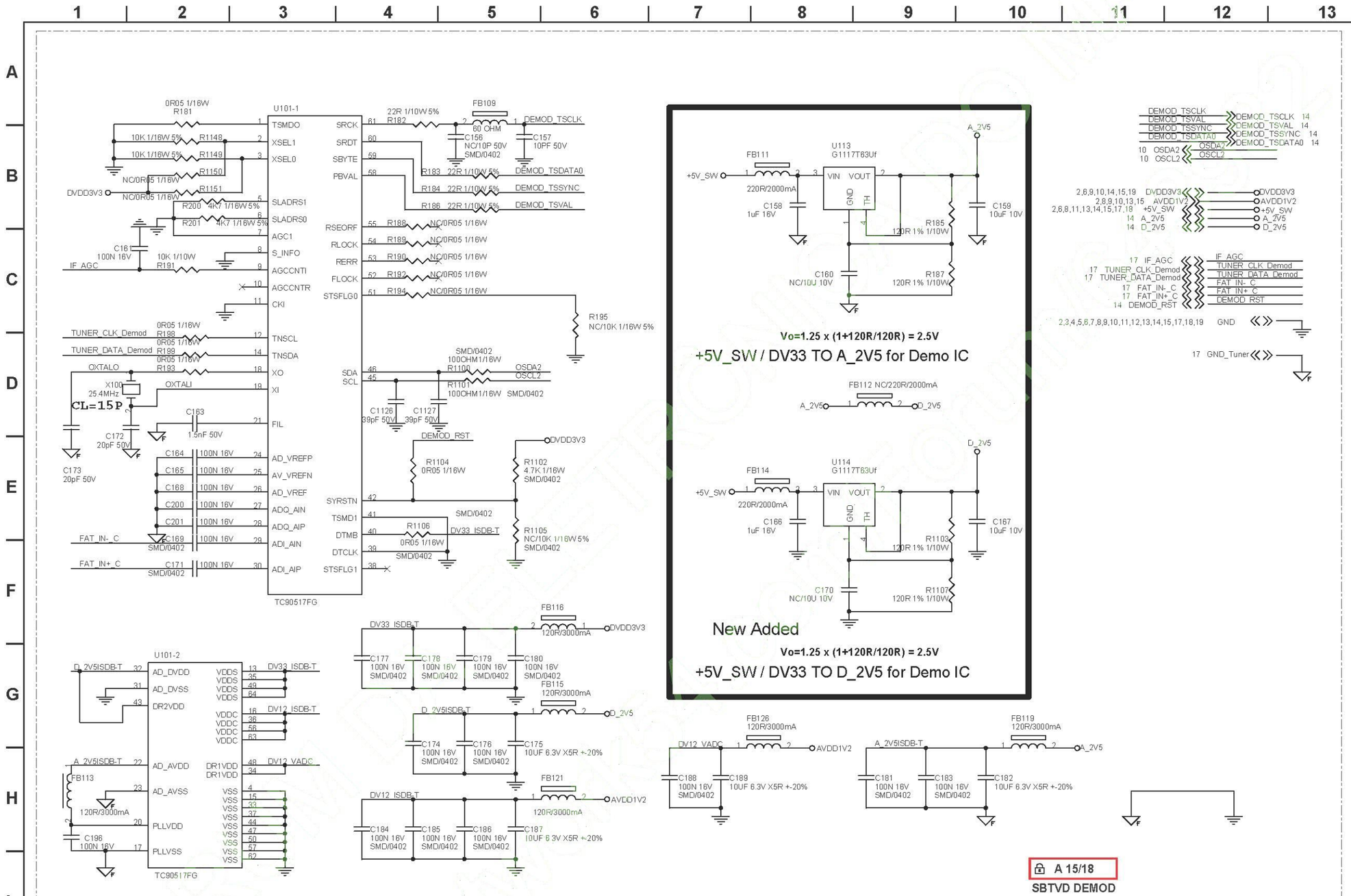
A BOARD SCHEMATIC DIAGRAM (13 OF 18)



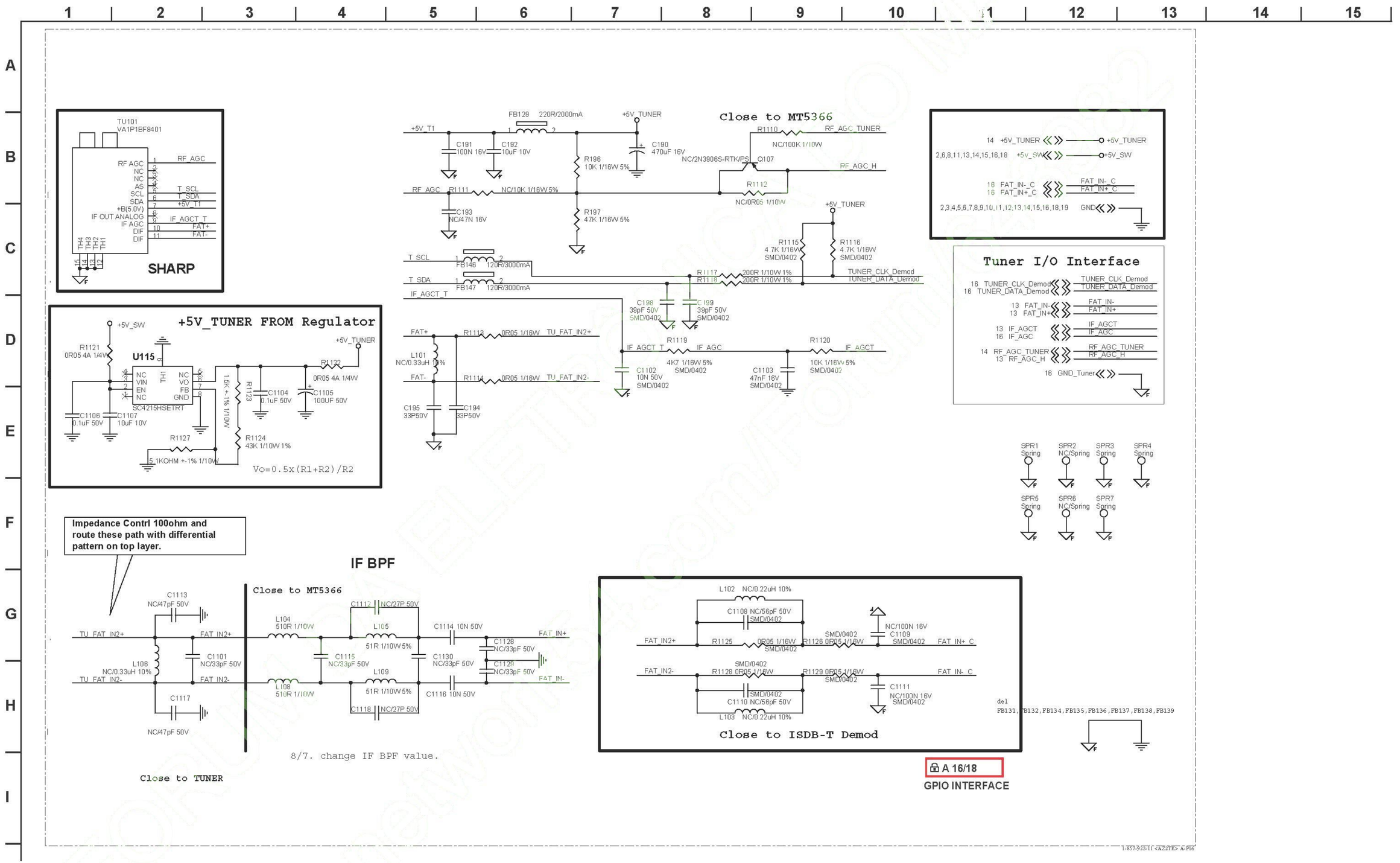
A BOARD SCHEMATIC DIAGRAM (14 OF 18)



A BOARD SCHEMATIC DIAGRAM (15 OF 18)



A BOARD SCHEMATIC DIAGRAM (16 OF 18)

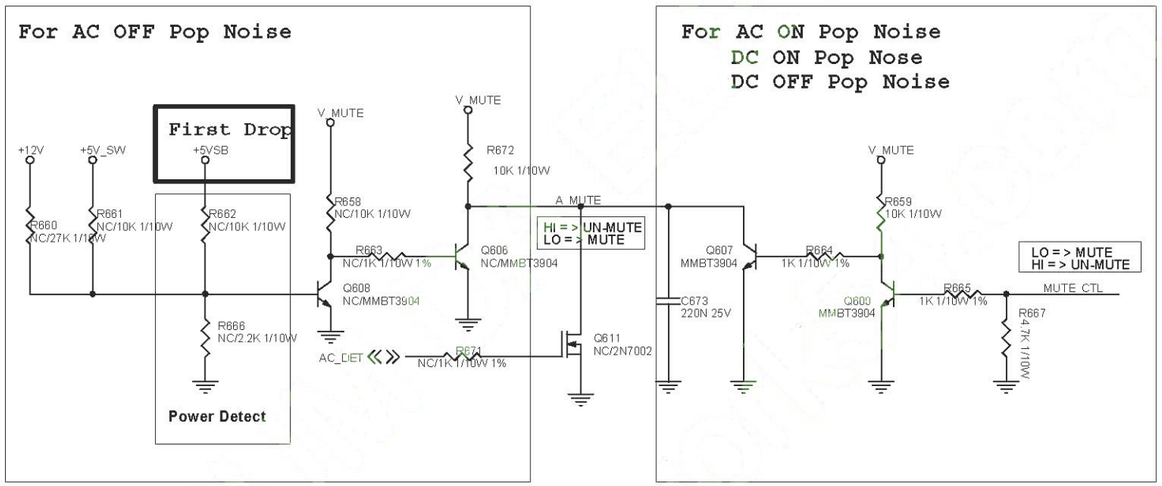


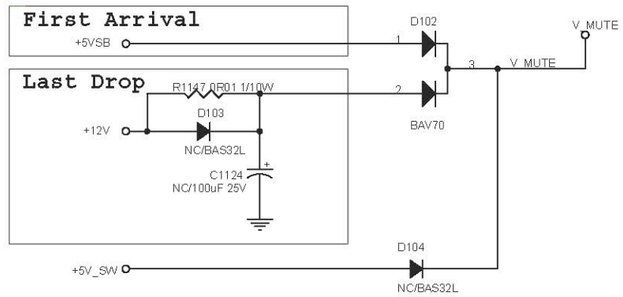
A BOARD SCHEMATIC DIAGRAM (17 OF 18)

14 MUTE_CTL → MUTE_CTL
3,11 V_MUTE → V_MUTE
3,11,12 A_MUTE → A_MUTE

2,7,9,10,14 3V3SB → 3V3SB
2,4,7 +5VSB → +5VSB
2,12,15 +12V → +12V
2,6,8,11,13,14,15,16,17 +5V_SW → +5V_SW
2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19 GND

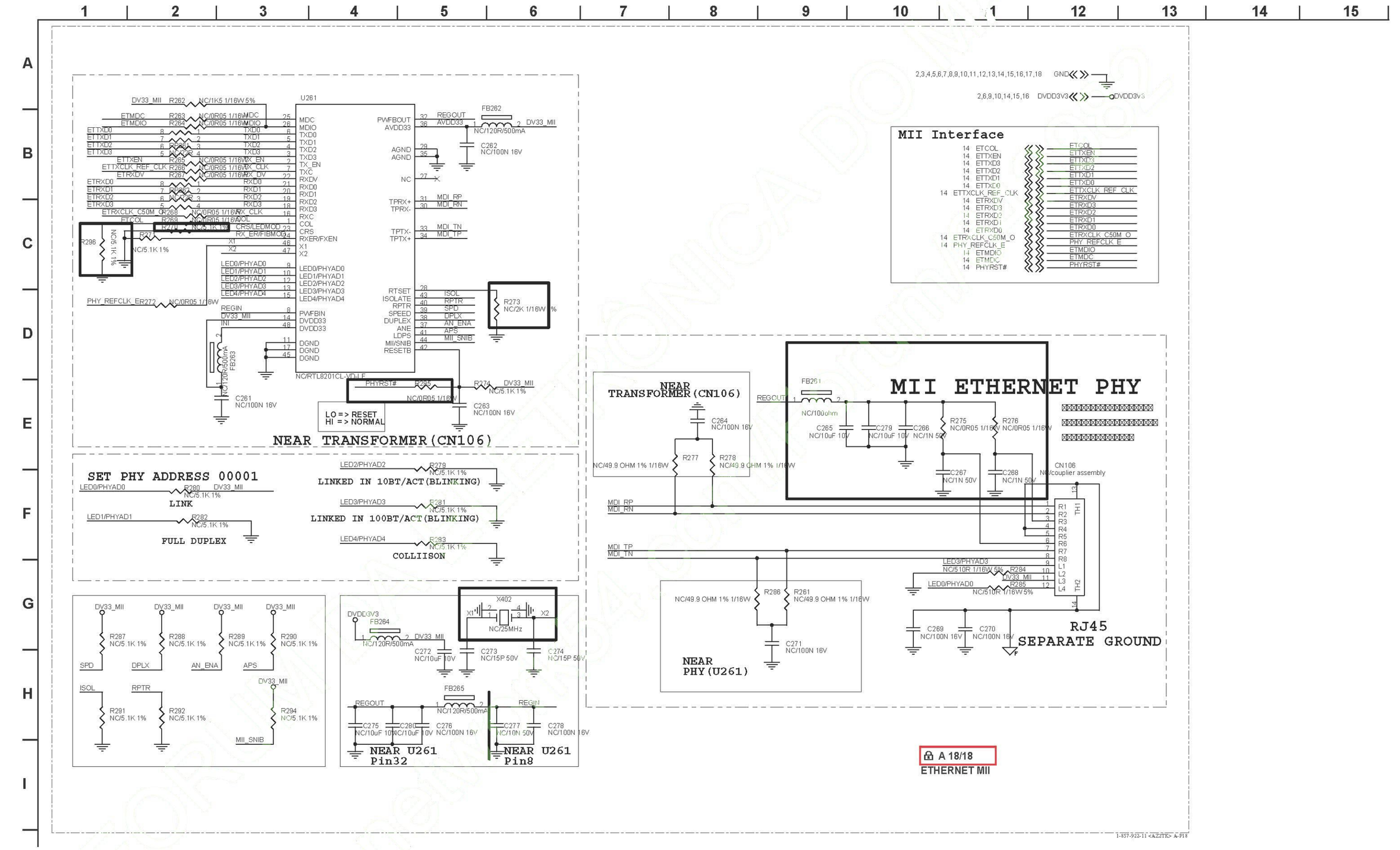
Mute Circuit





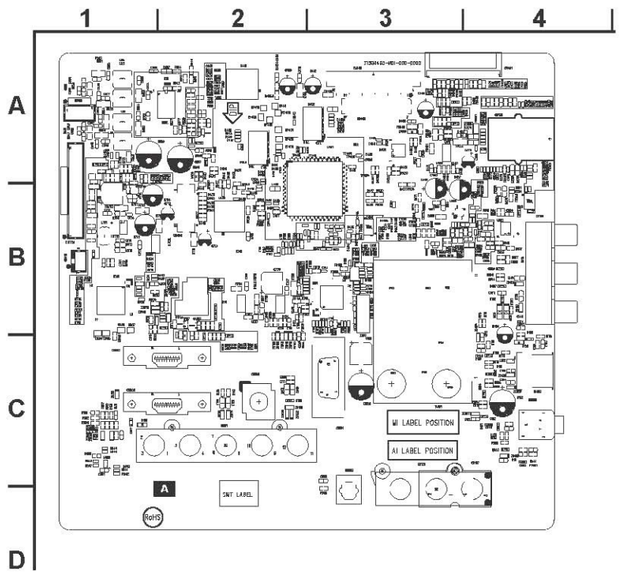
A 17/18
RS-232

A BOARD SCHEMATIC DIAGRAM (18 OF 18)

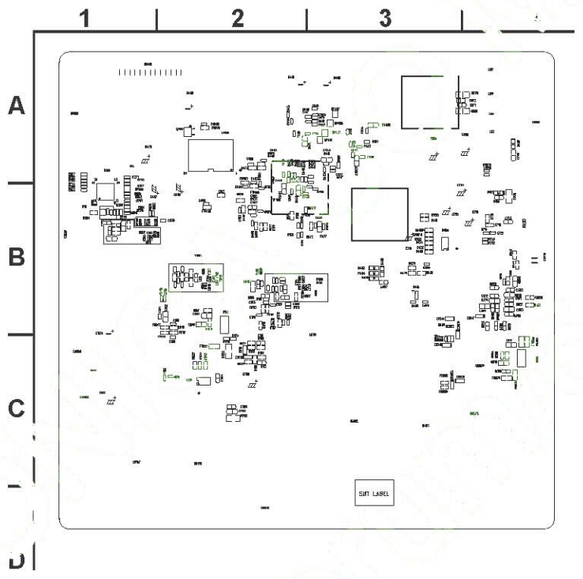


A [SYSTEM POWER/AV IN OUT/GA/YPBRPR/SIDE AV/SPDIF/USB/SIDE HDMI/HDMI CONNECTOR/HDMI SWITCH/DDR3 DRAM/FLASH/XTAL/JTAG/UART/PREAMP/HEADPHONE OUT/AUDIO AMP/A/V INTERFACE/GPIO INTERFACE/LVDS INTERFACE/RS-32/ETHERNET MII]

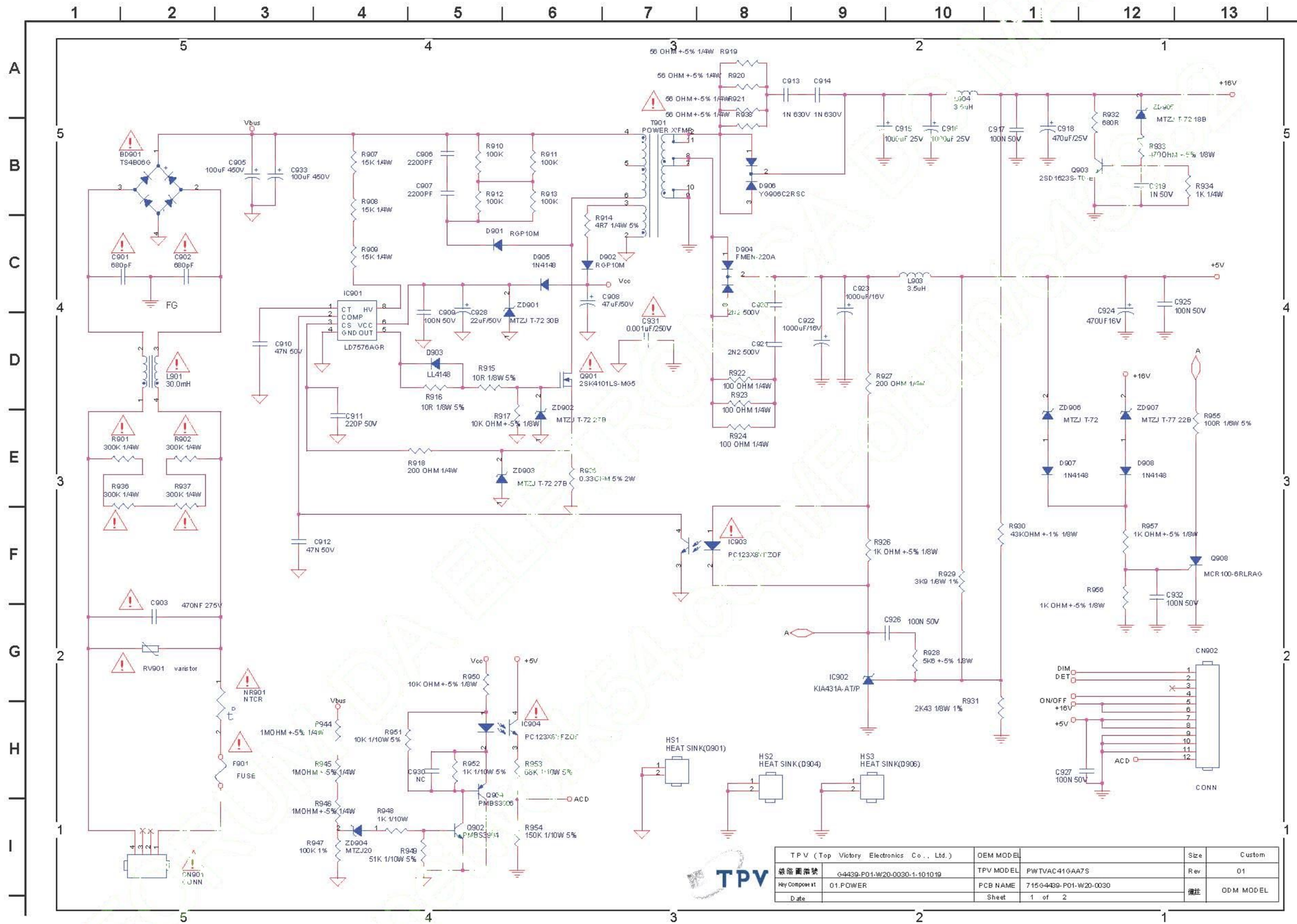
COMPONENT SIDE



CONDUCTOR SIDE



LIPS22 BOARD SCHEMATIC DIAGRAM (KDL-22BX325 ONLY)

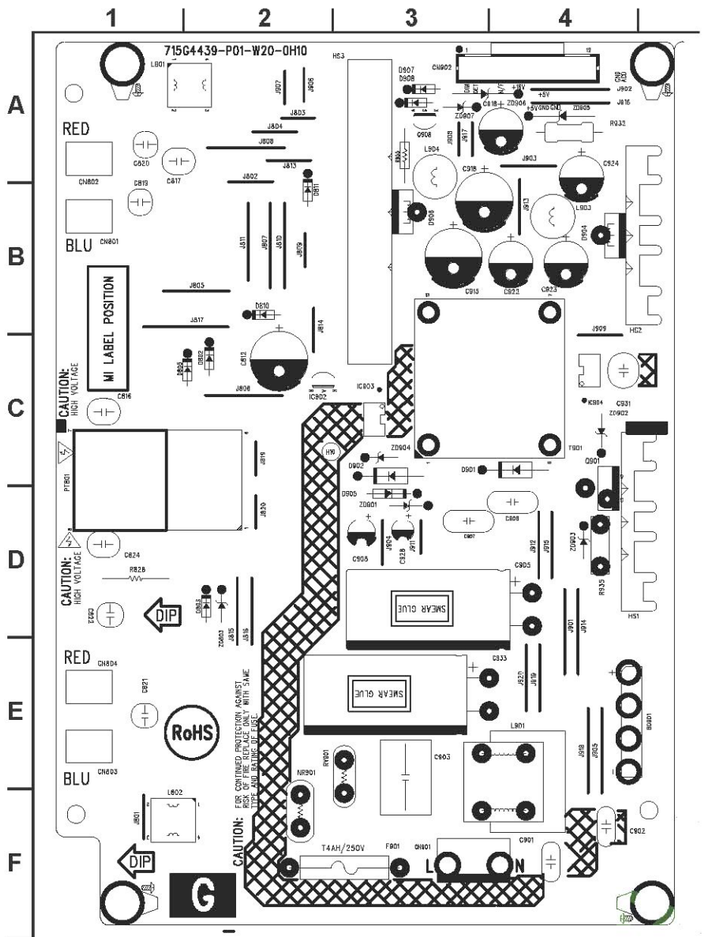


TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	Custom
線路圖編號	G4439-P01-W20-0030-1-101019	TPV MODEL	PWTVAC41GAA7S	Rev	01
Key Component	01.POWER	PCB NAME	715G4439-P01-W20-0030	備註	ODM MODEL
Date		Sheet	1 of 2		

LIPS22

[POWER]

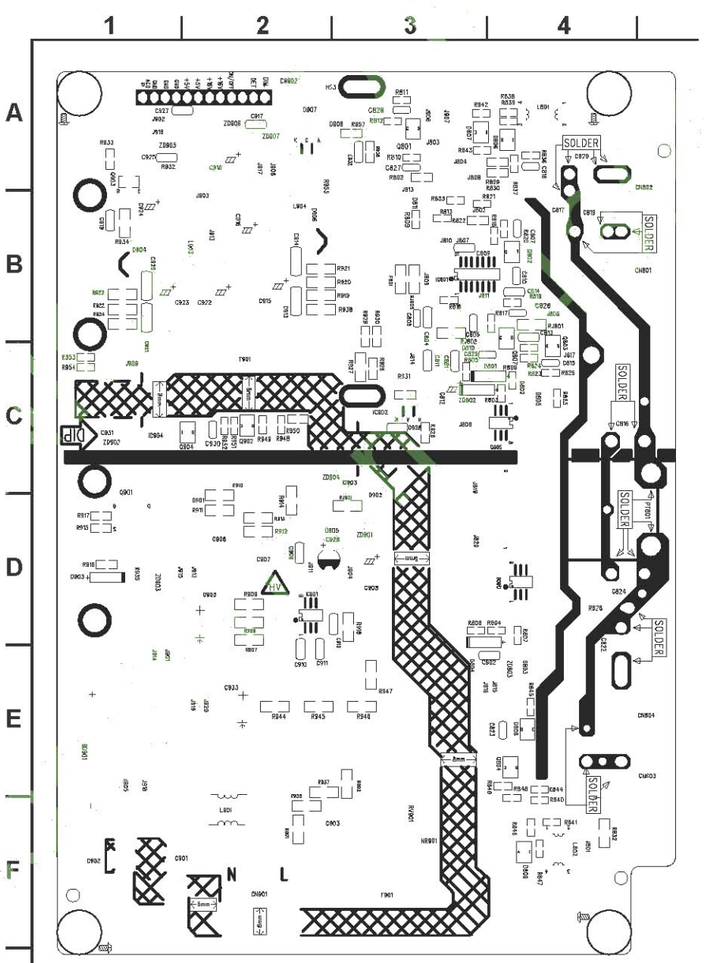
COMPONENT SIDE (KDL-22BX325 ONLY)



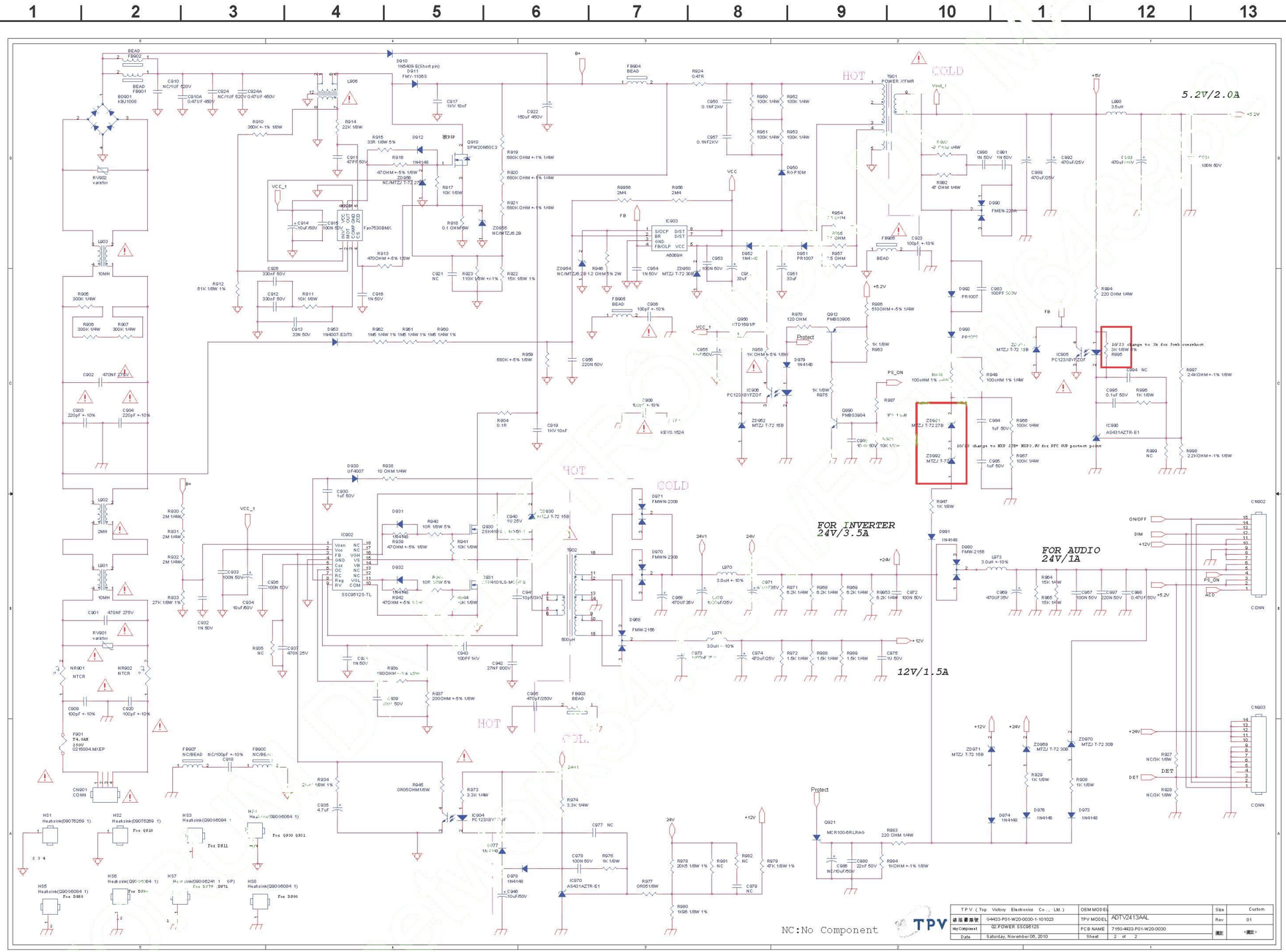
LIPS22

[POWER]

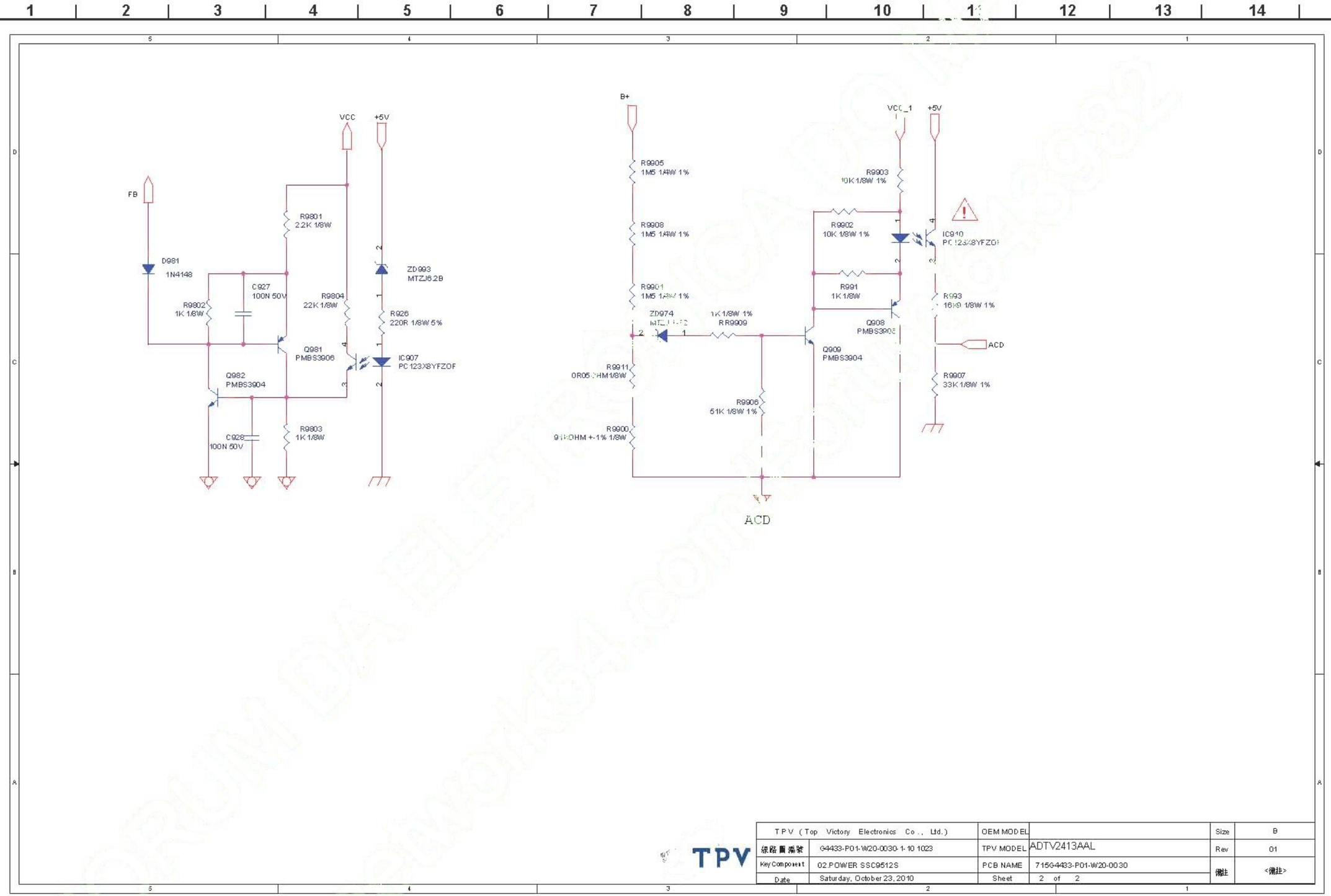
CONDUCTOR SIDE (KDL-22BX325 ONLY)



GT32 BOARD SCHEMATIC DIAGRAM (KDL-32BX325/32BX326/32BX425 ONLY) (PAGE 1 OF 2)

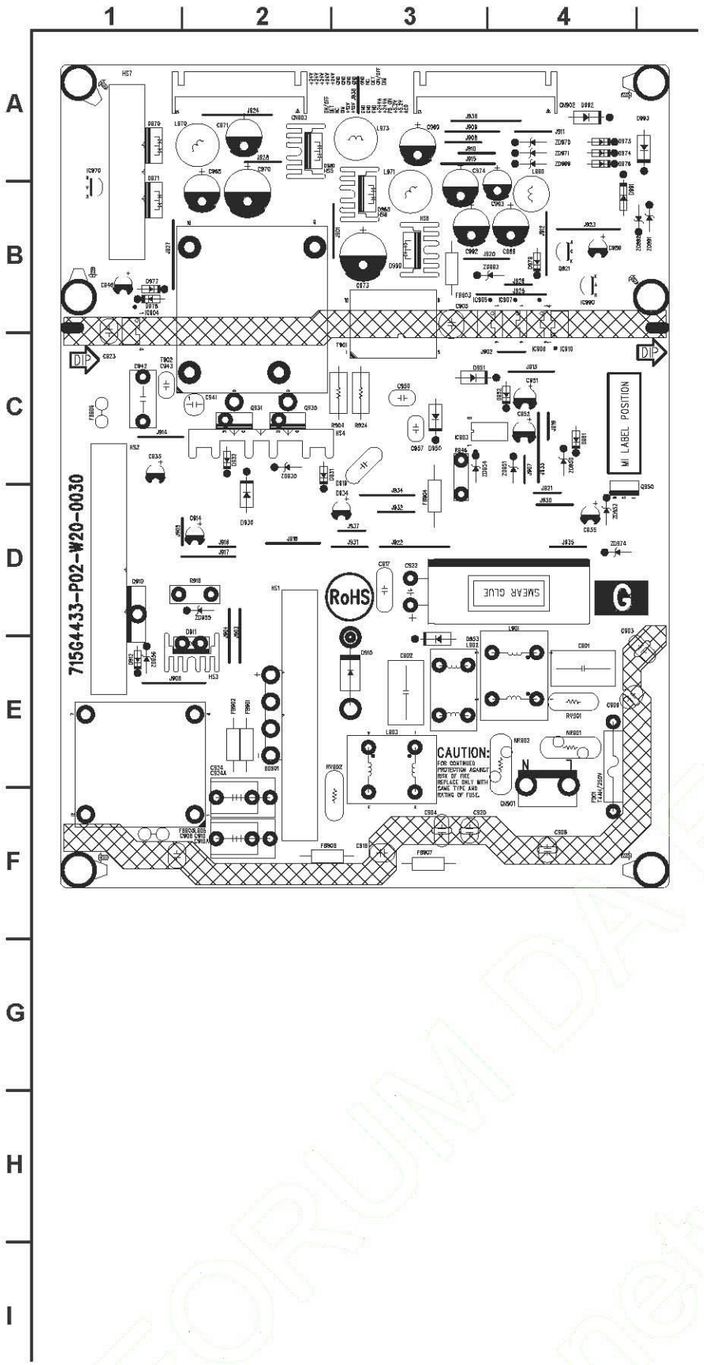


GT32 BOARD SCHEMATIC DIAGRAM (KDL-32BX325/32BX326/32BX425 ONLY) (PAGE 2 OF 2)

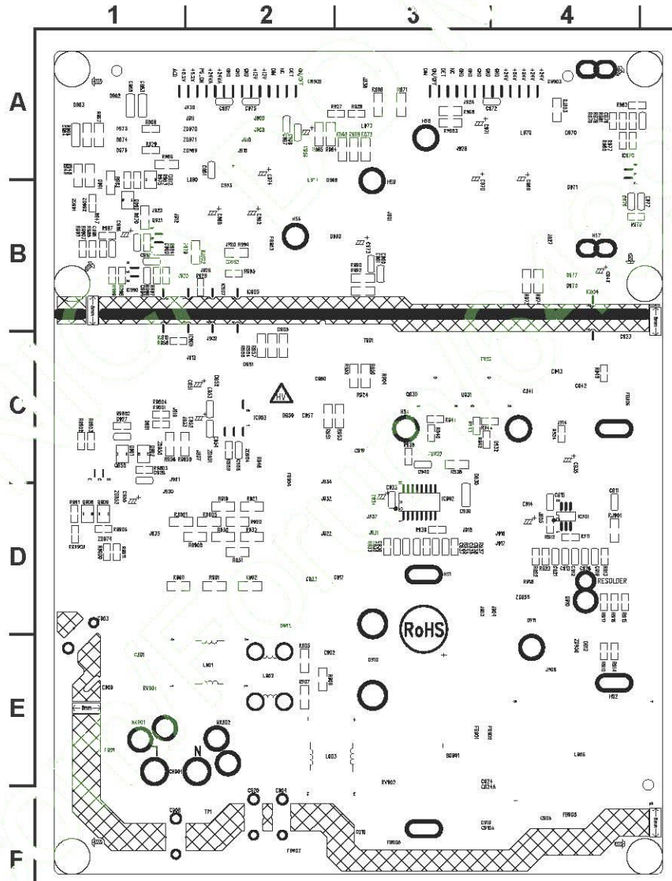


TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
線路圖編號	G4433-P01-W20-0030-1-10 1023	TPV MODEL	ADTV2413AAL	Rev	01
Key Component	02.POWER SSC9512S	PCB NAME	715G4433-P01-W20-0030	備註	<備註>
Date	Saturday, October 23, 2010	Sheet	2 of 2		

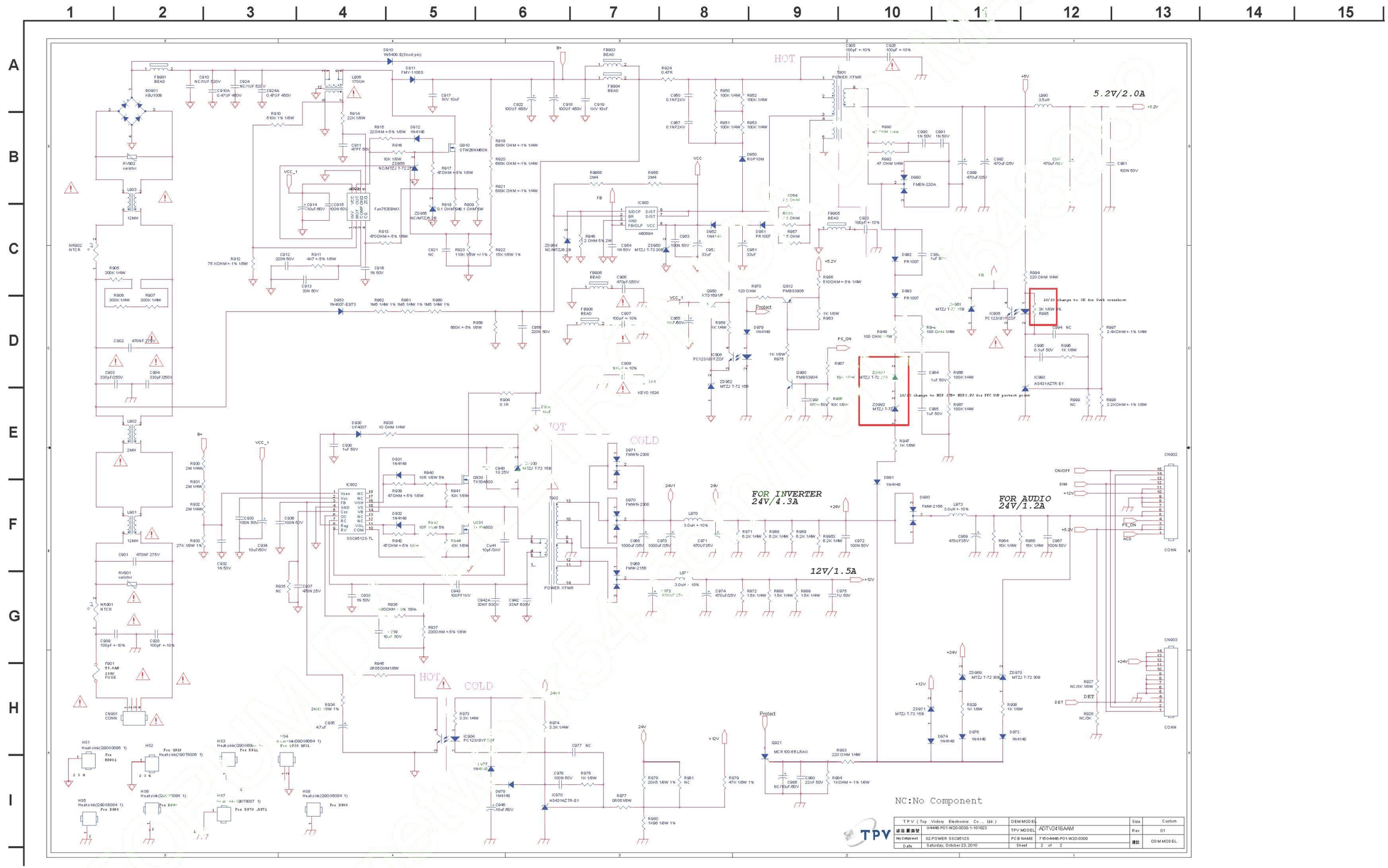
GT32 [POWER]
COMPONENT SIDE (KDL-32BX325/32BX326/32BX425 ONLY)



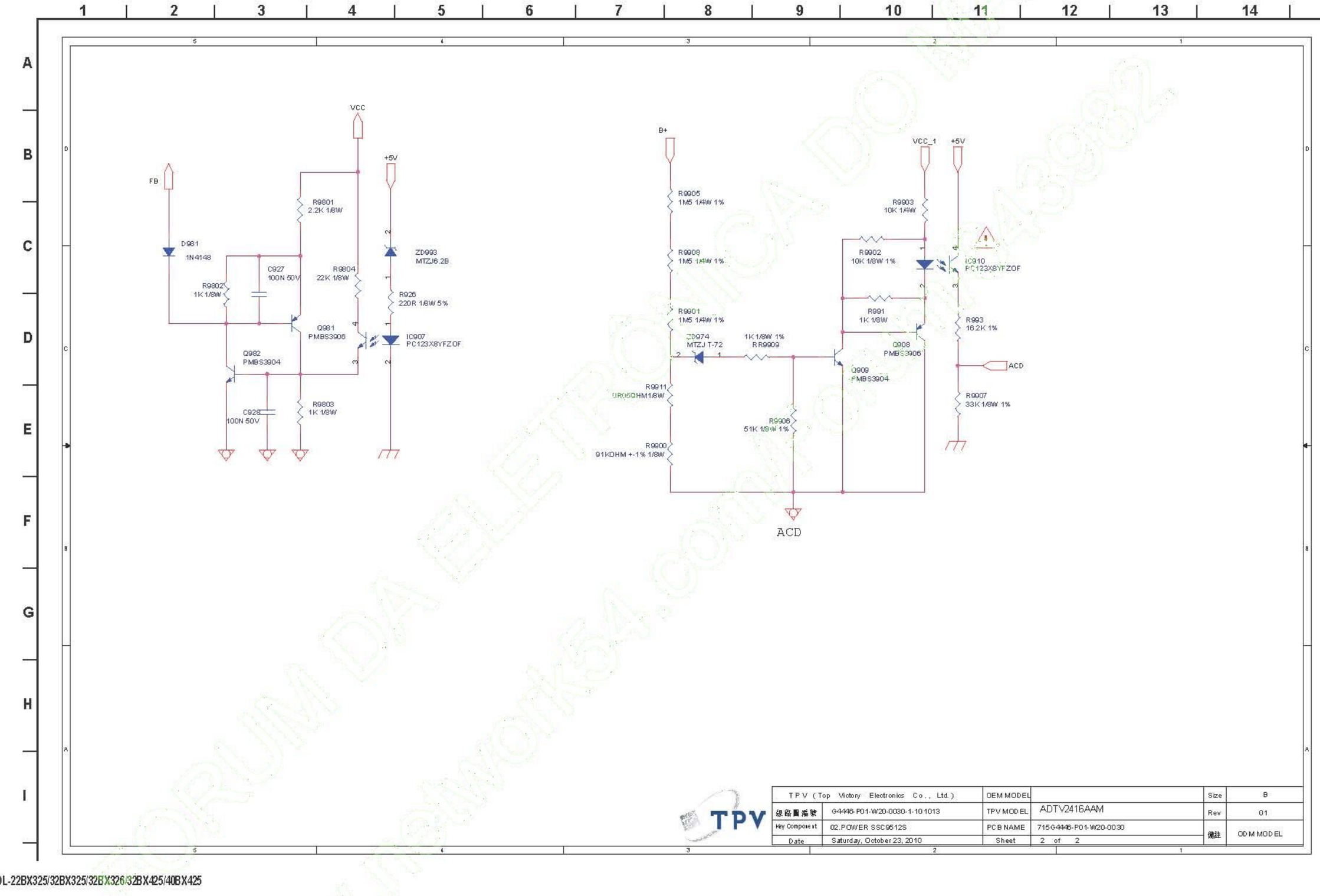
GT32 [POWER]
CONDUCTOR SIDE (KDL-32BX325/32BX326/32BX425 ONLY)



GT40 BOARD SCHEMATIC DIAGRAM (KDL-40BX425 ONLY) (PAGE 1 OF 2)

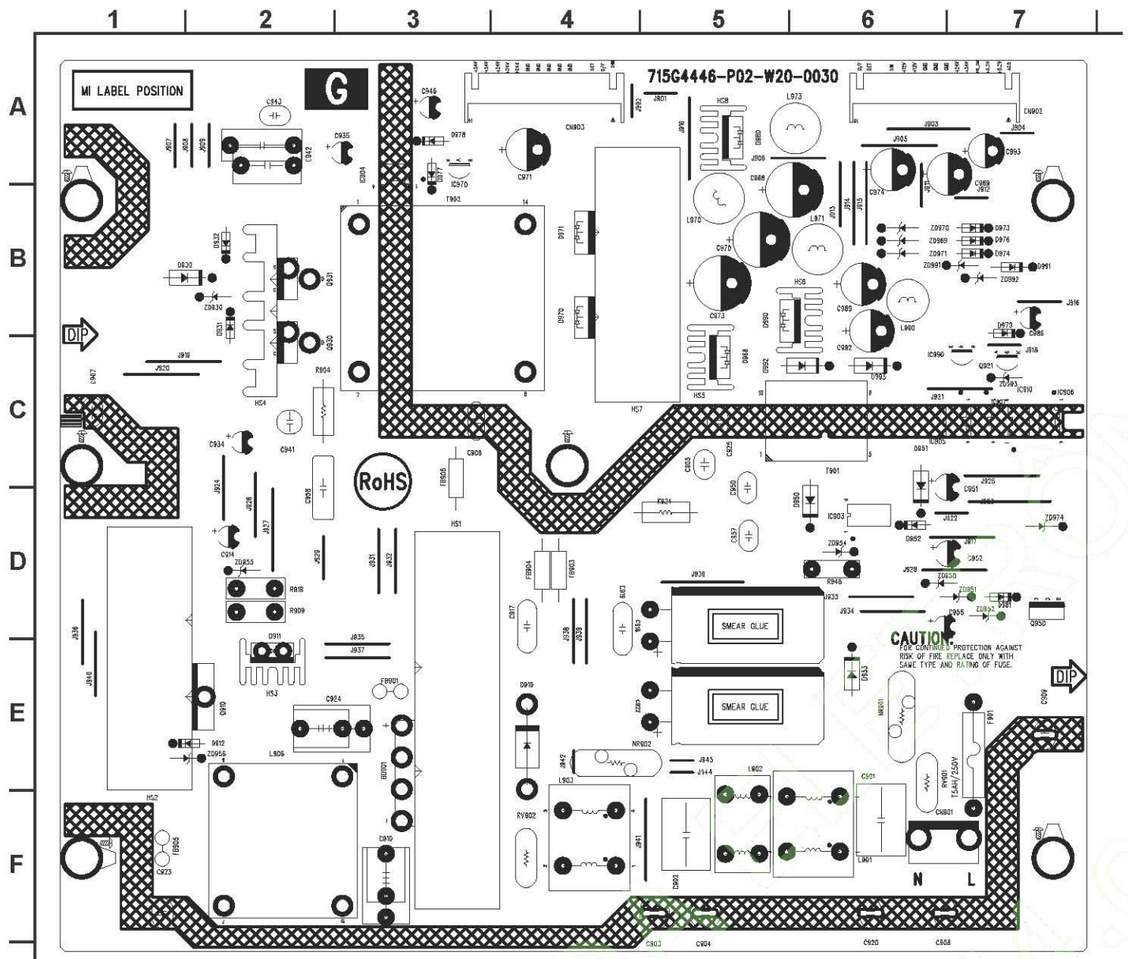


GT40 BOARD SCHEMATIC DIAGRAM (KDL-40BX425 ONLY) (PAGE 2 OF 2)

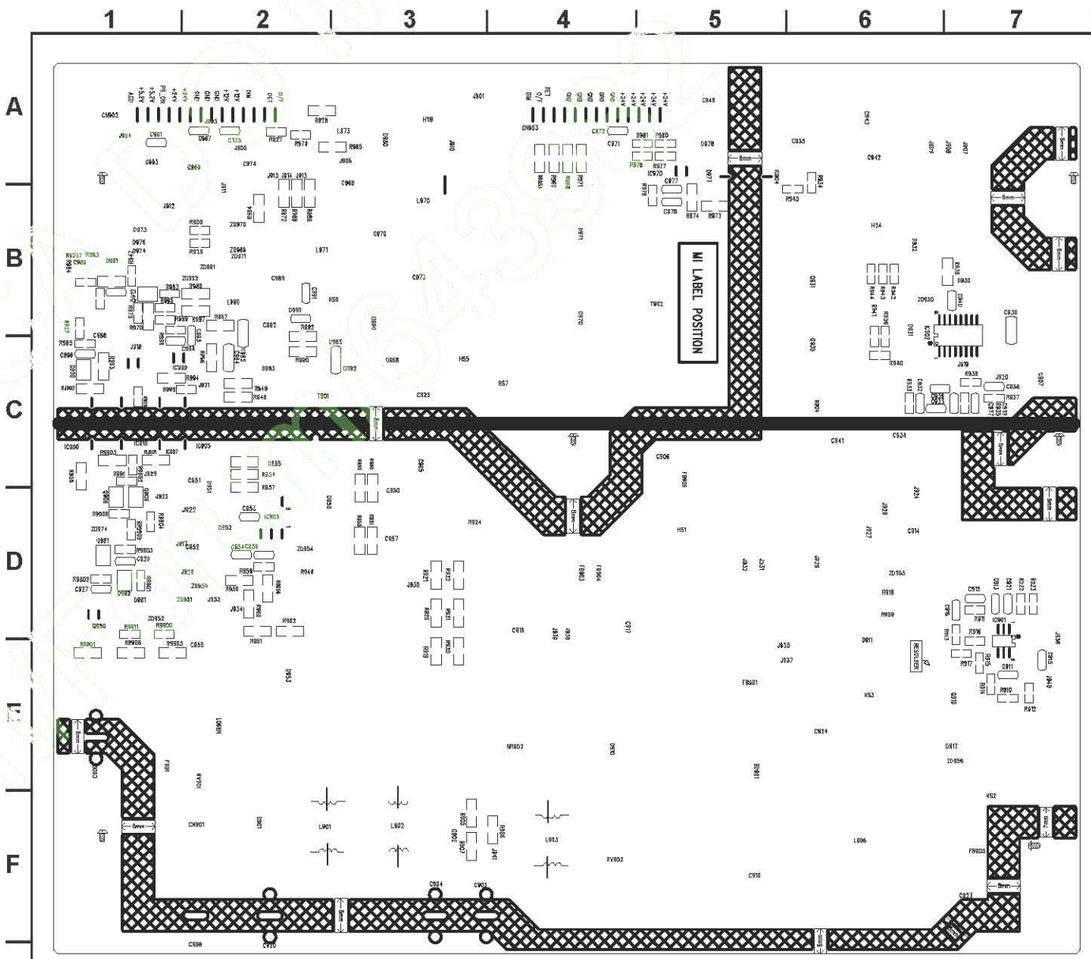


TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
線路圖編號	G4446-P01-W20-0030-1-101013	TPV MODEL	ADTV2416AAM	Rev	01
Key Component	02.POWER SSC9512S	PCB NAME	715G4446-P01-W20-0030	備註	ODM MODEL
Date	Saturday, October 23, 2010	Sheet	2 of 2		

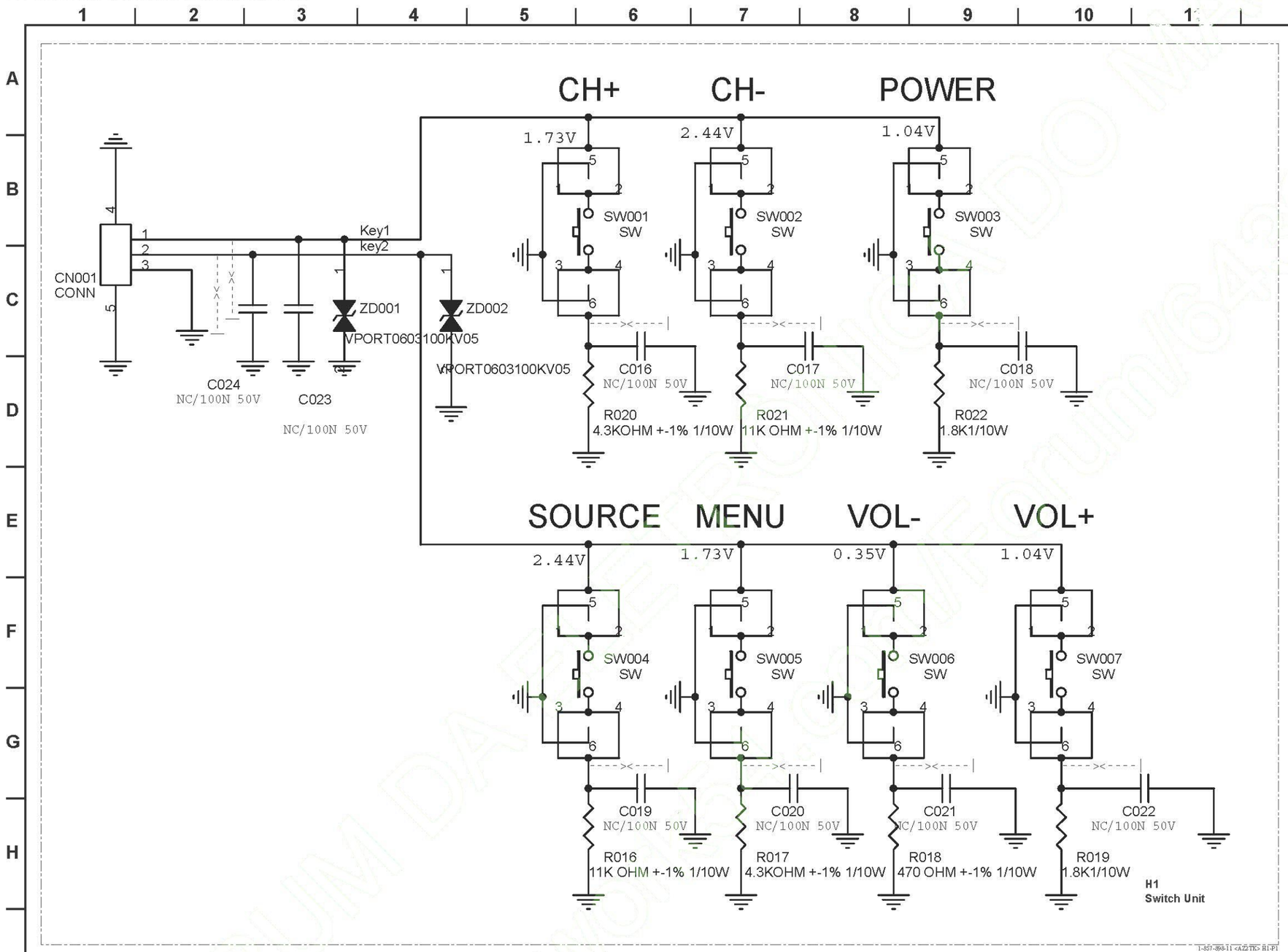
GT40 [POWER]
COMPONENT SIDE (KDL-40BX425 ONLY)



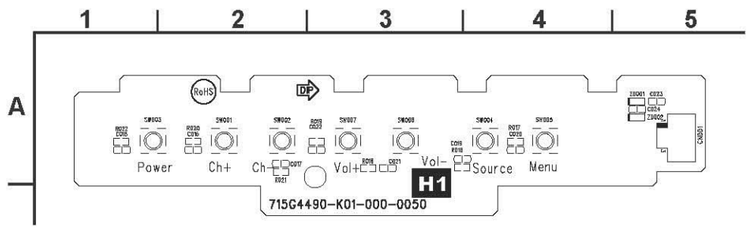
GT40 [POWER]
CONDUCTOR SIDE (KDL-40BX425 ONLY)



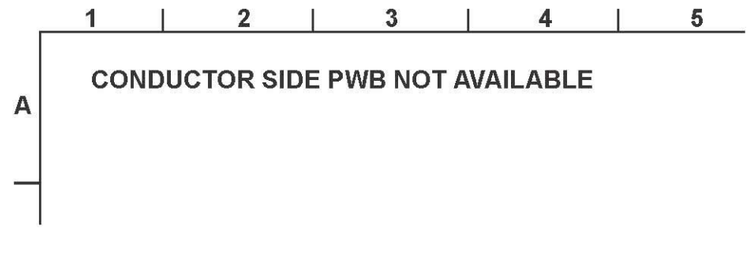
H1 BOARD SCHEMATIC DIAGRAM



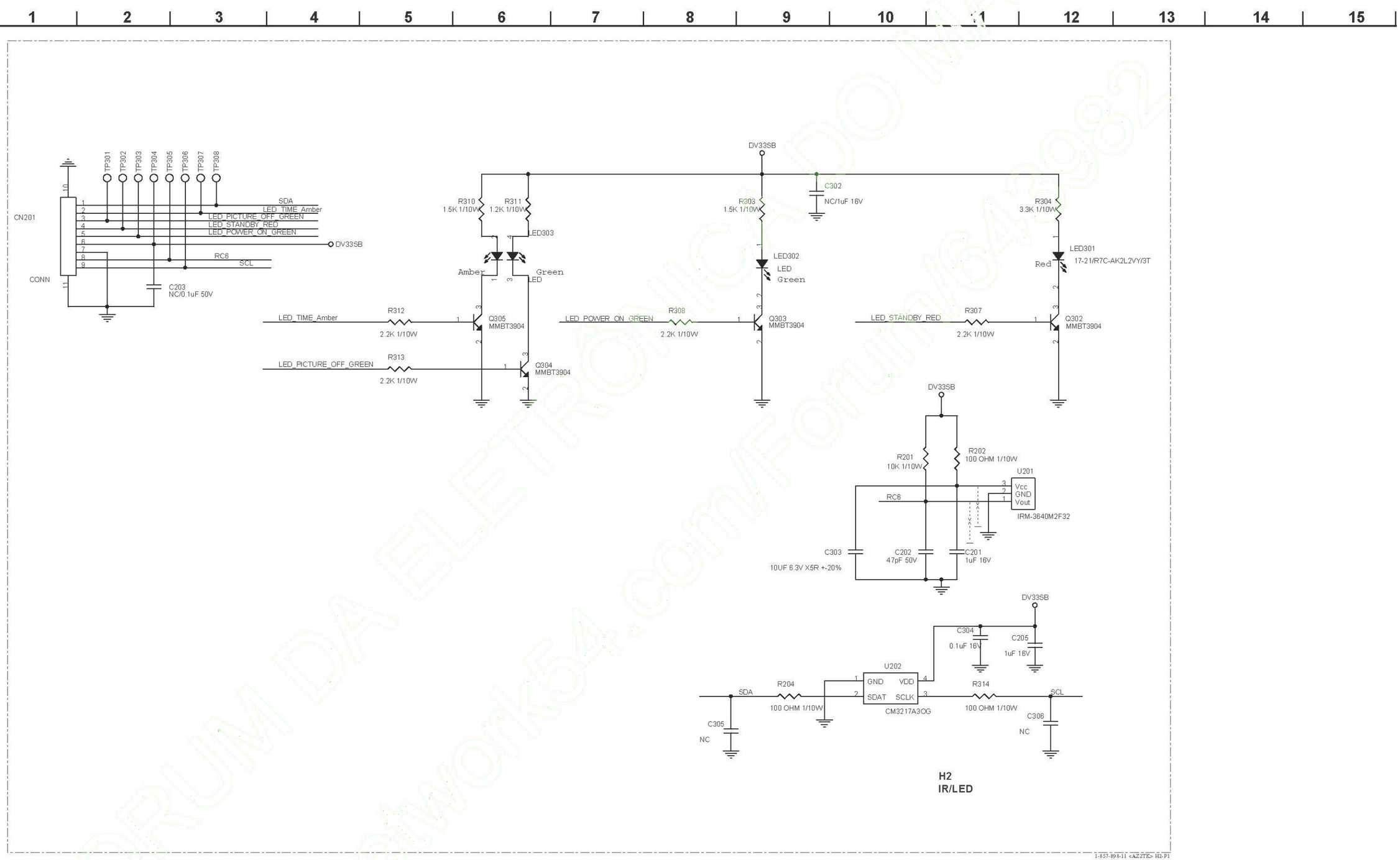
H1 [SWITCH UNIT]
COMPONENT SIDE



H1 [SWITCH UNIT]
CONDUCTOR SIDE



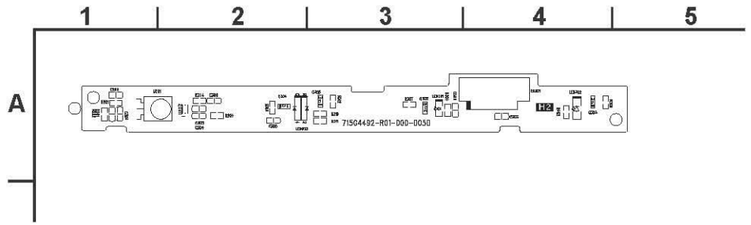
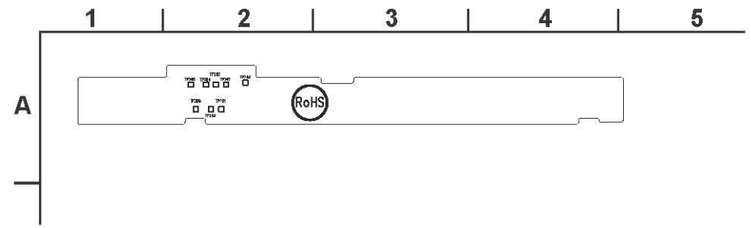
H2 BOARD SCHEMATIC DIAGRAM



H2
IR/LED

1-857-898-11 <AZ2TK> H2-P1

H2 [IR/LED]
COMPONENT SIDE



H2 [IR/LED]
CONDUCTOR SIDE